DEC 2 0 1931

HYGEIA

The HEALTH MAGAZINE

PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION

NEW YEAR

Jan., 1932 25 Cents

re Doctors Necessary? The Father in the Family

Medical Lib

"We are advertised by our loving friends"

A Happy Little Man

Fed on Mellin's Food and Milk from the age of six weeks to the end of the bottle-feeding period.

No digestive troubles. Normal rate of gain in weight and in general progress.

He was 2 years old when this picture was taken, weighed 33 pounds without clothes and was 40 inches tall in bare feet—

Healthy-Strong-Active

Results to be expected from the use of

Mellin's Food ACCEPTED AMERICAN MEDICAL ASS'N. Committee on Foods **A Milk Modifier**

Made from wheat flour, wheat bran, malted barley and bicarbonate of potassium — consisting essentially of maltose, dextrins, proteins and mineral salts.

HYGEIA, the Health Magazine, is published monthly by the American Medical Association, 535 North Dearborn Street, Chicago, Ill. Yearly subscription price, $3.00; for foreign postage add 50 cents. Volume 10, Number 1. Entered as second-class matter March 21, 1923, at the postoffice at Chicago, Ill., under the Acts of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1,103 Act of October 3, 1917, authorized March 21, 1923.

Medical Lib
Hygiene + Pub H.
Direct

Conquest

Milton, the blind, who looked on Paradise!

Beethoven, deaf, who heard vast harmonies!

Byron, the lame, who climbed toward Alpine skies!

Who pleads a handicap remembering these?

—Violet Alleyn Storey

AT some stage in her child's development, it is natural for every mother to suffer moments of doubt as to whether that child is progressing as rapidly as other parents' children. Milton, Beethoven, Byron—to mention only a few—conquered the world in spite of *extreme* physical handicaps. Your child, fortunately, enjoys the wonderful benefits—through your physician—of modern preventive and curative medicine denied to children of only a few generations ago.

BABIES SUPERVISED BY PHYSICIANS ARE BETTER BABIES

This space is devoted to the interest of better babies by
MEAD JOHNSON & COMPANY, *Evansville, Ind.*

"Peace and Good Will" in Advertising—

WHITHER BOUND?

SUPPOSE a young lady is being wooed by two young men. No. 1 follows the age-old formula of putting his best foot foremost and is doing a good job of selling himself to the damsel purely on his merits.

No. 2 appears on the scene. He, too, wants the fair lady. He, too, has his merits. But instead of being flirtatious with the lady and getting his good points before her, he centers his attention on his rival. He frowns and glowers, says some nasty words and attempts to ruin the other young man's chances by the childish device of mud-slinging. Imagine a young woman being won even in these bizarre times by such a suitor.

This little parable, nevertheless, is not very far from being a good portrayal of some of the performances you see nowadays in advertising.

Tight times have made it more difficult to sell goods. Some advertising men have promptly reverted to their primordial instincts. Instead of flirting with us, the people, they are flinging verbal brickbats at each other. We, the prospective customers, may pause to witness the spectacle as we would any other kind of a fight. However, I do not believe any man ever bought a dog just because that dog put up a good fight against some other canine. As a matter of fact a fighting dog is a great nuisance—a liability to the owner. When acquiring a dog or any other article there must be a broader basis of appeal—a conviction that the dog will be a faithful companion for the children, a useful watchman of our household, an ornamental accessory to our car, or some other reason of self-interest.

Leading advertising men themselves have recently been giving serious consideration to the question of whether it is not time to call a halt on the practice of an advertiser knocking his competitor. Not long ago Mr. Ralph Starr Butler, Vice-President of the General Foods Corporation, solemnly warned several hundred advertising men that this sort of competitive advertising will in the long run be a losing venture. Advertising is an efficient, serviceable business tool, he stated, but it may easily become dulled because of public disgust over the abuse of that tool. He pointed out that in the personal relations of life and that in personal selling, it is considered improper to make disparaging comparisons, but that for some strange reason numerous advertisers assume that they can create good will for themselves by fostering ill will against their competitors.

The whole trouble with this kind of advertising is that it tears down instead of builds up. It creates distrust instead of confidence. When I leaf through the advertising pages of a magazine I expect to find some helpful suggestions, some ideas that will make life easier, simpler and more pleasurable. Imagine my feelings, then, if I find an automobile advertiser telling me that my faithful chariot, being of a different make, has 57 varieties of defects; or a radio competitor shrieking at me that the radio of my choice is chock full of squeals and static; or cigarette advertisers attempting to frighten me with suggestions that the brand I smoke may cause anything to befall me from shaking palsy to being a social outcast. No, I do not want to read a great deal of that type of advertising. My auto or radio or cigarettes may all have their faults but in their purchase I have used my best judgment and it arouses my indignation for someone to tell me either in person or in print that my judgment has been poor.

Quite obviously then if advertising lowers itself to the level of a slam-bang, tooth and nail scuffle, the good will of the public is not going to hover long in those parts. Or speaking seasonally, "peace and good will" must travel together in advertising.

Of course business is not a parlor game and there are times when the only possible way to get an intelligent idea of a new product across to advertising readers is by reference to the old. But even so there is no reason why advertising cannot be done with due regard for good taste and proper decorum. Knocking is one thing. Stating facts is another.

By this time you no doubt have a suspicion that we are not at all sympathetic to the disparaging type of advertising in the pages of HYGEIA. Happily, little if any of that kind of advertising comes to us. There is a deep basic reason for this condition. Articles advertised in HYGEIA relate chiefly to health and physical well-being. They have come into existence, not as fleeting fads, but on the sound basis of facts. Behind the development of many of these articles is a history of painstaking scientific investigation and study. Such products have in themselves plenty of interesting points to talk about. Their manufacturers need not indulge in predatory tactics and secure business by the device of taking it away from competitors.

Charles S. Mohler

ADVERTISING EDITOR

HYGEIA

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Contributors to This Issue

WITH the United States and his own California soon to be host to the Olympic Games, ALFRED E. PARKER wonders if the early ideals of the contest have not been lost. Mr. Parker is director of physical education at Berkeley High School. . . . To fellow students and collectors of Lincolniana and to his medical colleagues and the public, DR. MILTON H. SHUTES, California physician, presents through HYGEIA a book on the Great Emancipator. It begins in this issue. . . . DR. C. E. SCELETH, medical superintendent of the House of Correction, Chicago, is a recognized authority on alcoholism and its treatment. . . . Fifteen years' experience in hospitals and in her own home leads LOUISE PRICE BELL to set down on paper some of her unique ideas for entertaining the convalescent child.

The name of WINGATE M. JOHNSON, M.D., is seen frequently of late in literary publications; next month he will again appear in HYGEIA. . . . PROF. F. C. KOCH, chairman of the department of physiological chemistry, University of Chicago, writes on beriberi.

When her chief in the U. S. Geological Survey was stricken with paralysis, TAISIA STADNICHENKO devised for his use an exercise board. . . . Your own boy and Johnny Groves are discussed by DR. E. S. RADEMACHER, clinical director of the Connecticut Society for Mental Hygiene. . . . DR. JOSEPH H. MARCUS is an eastern pediatrician.

DR. W. BÉRAN WOLFE is director of the Community Church Mental Hygiene Clinic, New York; he was formerly psychiatrist to the Children's Court of that city. . . . DR. ROBERT A. KILDUFFE is author of a recently published scientific work on the blood.

Long familiar to readers of this magazine is DR. THURMAN B. RICE, associate professor of bacteriology and public health at Indiana University. . . . An Englishman living in Paris, DR. CLAUDE LILLINGSTON pays tribute to an American in this month's biography of medical pioneers. . . . KATHRYN HECKER and her husband, it seems, keep waltzing mice.

ISABEL DU BOIS is a librarian connected with the bureau of navigation, Navy Department, Washington. . . . Diet faddists can never quote DR. SOLOMON STROUSE in support of their theories; moderation and common sense are his two main principles.

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OVALTINE

A Chocolate Flavored Dry Malt Extract Sold with Exaggerated Claims

OVALTINE, widely known throughout the world because of extensive advertising, is sold with two slogans: "A food beverage" and "A food concentrate." Because of its extensive exploitation, because it is stated to be widely recommended by physicians as a building and strengthening food in convalescent and other invalid conditions, because of the special stress placed on it as a means of inducing calm, natural sleep without the use of drugs, and because recent advertising has emphasized the alleged vitamin and diastase content, the Committee on Foods of the American Medical Association thought it desirable to consider the nature of the product and the claims made for it.

Ovaltine as sold in the United States is manufactured by the Wander Company, Chicago. It is essentially a concentrated extraction from malt, milk and eggs, flavored with cocoa.

It is exploited as a "Swiss food discovery" and "a scientific food concentrate; containing in highly concentrated form practically every single food element necessary to life." It is stated to be "recommended by 20,000 physicians the world over . . . for many purposes, both in health and sickness . . . as a building and restorative food for convalescents and invalids; for stomach disorders and feeble digestion, for nervous and rundown conditions; as a means of inducing calm, natural sleep without the use of drugs; for growing children, particularly those under par or underweight; as a pick-up and restorative food drink for busy workers; a food for expectant and nursing mothers to maintain their strength and promote the flow of milk."

IT IS claimed that Ovaltine "actually makes children want to eat more—and increases the nourishment and digestibility of every bite they take; taken regularly, it usually adds a pound or more a week to a child's weight and has a noticeable effect in curbing nervousness; it (has) solved the problem of feeding invalids . . . and is also solving for modern mothers the problem of child feeding. It constitutes in itself a complete food . . . makes milk digest twice as easily . . . contains 'lecithin' which is a direct nerve food. A few days' use of Ovaltine usually curbs nervousness noticeably. Of greatest importance, Ovaltine contains in high proportion a remarkable food element 'diastase' (a substance which gives one food the power to digest the starch content of other foods in your stomach). It will digest four to five times its own weight of other foods. It is this which distinguishes Ovaltine from any other health food in the world. . . . By breaking down the curds in the milk, by digesting the starches in the stomach, it speeds up digestion and empties the stomach sooner. This makes the child hungry. During the World War it was used as a standard ration for rebuilding nerve-shattered shell shocked soldiers."

IT SEEMED desirable to the Committee on Foods to determine the diastatic value of the preparation. The method described under "Extract of Malt," page 147 of the U. S. Pharmacopeia, was used to determine qualitatively the diastatic value of a sample of Ovaltine purchased in a drug store in Chicago. A positive iodine reaction was obtained which compared to that of the control test conclusively demonstrated that some active diastase is present in Ovaltine but *not sufficient* to convert *"five times its weight of starch into water soluble sugars"* which is a specification for U. S. P. Extract of Malt. *Therefore, Ovaltine is not equivalent to U. S. P. malt extract in its amylolytic properties.*

In advertising appearing in women's periodicals during September, 1931, much emphasis is placed on the Ovaltine oatmeal test. The reader is urged to add three teaspoonfuls of Ovaltine to a cereal dish of cooked warm oatmeal and to see how the Ovaltine digests the starch content, thereby speeding up the digestion and creating a sensation of hunger. Any one with a slight knowledge of digestive processes will realize that the test is one of those pseudoscientific demonstrations calculated to confuse rather than to enlighten and leading

thereby to unwarranted inferences. Although Ovaltine does contain some active diastase there is little reason to believe that the addition of Ovaltine as a beverage to the diet of a child will hasten the digestion of cereals or induce hunger. Ovaltine does not have the diastase content of U. S. P. malt extract and will not digest four to five times its weight of other foods. Such effect as it has concerns starch digestion only. There is no apparent reason why it should affect to an appreciable extent the digestion of a mixed meal. If there is any evidence that Ovaltine actually does speed up digestion and empty the stomach sooner than usually is the case, that evidence is not available in the scientific literature.

The claim that lecithin, which may be considered one of the ingredients of Ovaltine since it is derived from the eggs, is a direct nerve food is about as preposterous as the old claim that fish is to be considered a brain food. The strange notion that any substance taken into the stomach will be selected by the blood and carried directly to the nerves and to the brain, thus giving them the physical properties that they possess, is not substantiated by any physiologic knowledge. True, nerve and brain tissue contain phosphorus, but the feeding of vast amounts of phosphorus will not enhance the functions or the qualities of the highly specialized tissues.

ON A par with the claim for lecithin is the one on which so much emphasis is laid in both periodicals and radio advertising for Ovaltine. This drink is urged as a cure for insomnia, as a preparation that induces natural sleep in the most severe cases, as a method to induce restful instant sleep entirely without drugs. The claim is based quite obviously on the well established fact that any warm drink taken before going to bed is an aid to overcoming restlessness. No doubt much of the effect is physiologic, some of it perhaps the same type of physiologic reaction as the general relaxation that accompanies the application of warmth. There is not, however, in Ovaltine any specific sleep-producing principle. It is not to be considered a hypnotic, a narcotic or a sedative, and it will not accomplish for severe cases of nervous diseases or stubborn cases of insomnia what can be accomplished by proper psychologic study, suitable physical therapy, such as a warm bath, or the proper administration of selected medicinal preparations.

Ovaltine may be said to represent an example of the way in which well recognized foods are exploited like "patent medicines" to credulous and ignorant people. Here is the emphasis on impaired digestion, sleeplessness and nerves; here again the pseudoscientific claims; here again the exploitation of a foreign chemist and the mystery associated with the type of advertising that was used to build "Sanatogen," the glorified cottage cheese, into America's most popular nerve tonic more than a decade ago.

TO THIS now is added the claim for vitamin content. The reader is told that Ovaltine has a high content of appetite-producing vitamin B. When another preparation was announced to be fortified with vitamin D, the promoters of Ovaltine immediately assured readers that it contained this interesting substance. No doubt the content of eggs does provide some vitamin D. Quite likely its content of malt does assure a possible content of vitamin B! But what assurance has the user that the vitamin B that it contains is preserved unchanged? What assurance does he have that the vitamin D that is present is there in such amount as to be of any service whatever?

There are now available in the open market for those who wish to purchase nutritious beverages of this character several products of known composition advertised honestly with claims based on their actual content. In contrast, Ovaltine is sold with grossly exaggerated claims; its composition is kept a mystery, and even if it did contain what the manufacturer says it does, it could not do the things the manufacturer says it will. The exploitation of Ovaltine represents a flagrant abuse of recognized principles in food advertising; it is in many respects not in accord with scientific fact and therefore misleading to the public.

THE IDEAL OF THE

SINCE we are to be host to the world's athletes this year, we of today may appropriately ask the question: "Have the Olympic Games lived up to the ideal set for them or have they been just an international show to be looked at and soon forgotten?" More especially can we ask such a question when we look into the origin and purpose of both the ancient and modern Olympic Games.

In ancient times the athletic ideal of Greece was to develop physical fitness in every citizen and to prepare him physically for the task of a soldier. But coupled with this ideal was the urgent desire that every Greek should develop a superb body, not possessing brute strength, but approaching perfect form, a body that could be exercised to music with gracefulness.

Every youth was taught from infancy to strive for the Greek ideal. Sculptors modeled perfect men—men who had developed physical strength and could display that strength in graceful movements. It was a worthy ideal, for it made for health and happiness in living, and it was an ideal that was carried into the ancient Olympic Games when they were started.

From the opening of the ancient games the poorest and noblest citizens of Greece were urged to participate in the games, a significant fact in the furtherance of the health and happiness of the people. Nor were the participating citizens allowed to enter the games untrained, for the last thirty days prior to the contests were spent in intensive training, and most of the athletes trained ten months before this period in order that they might attain a high physical excellence.

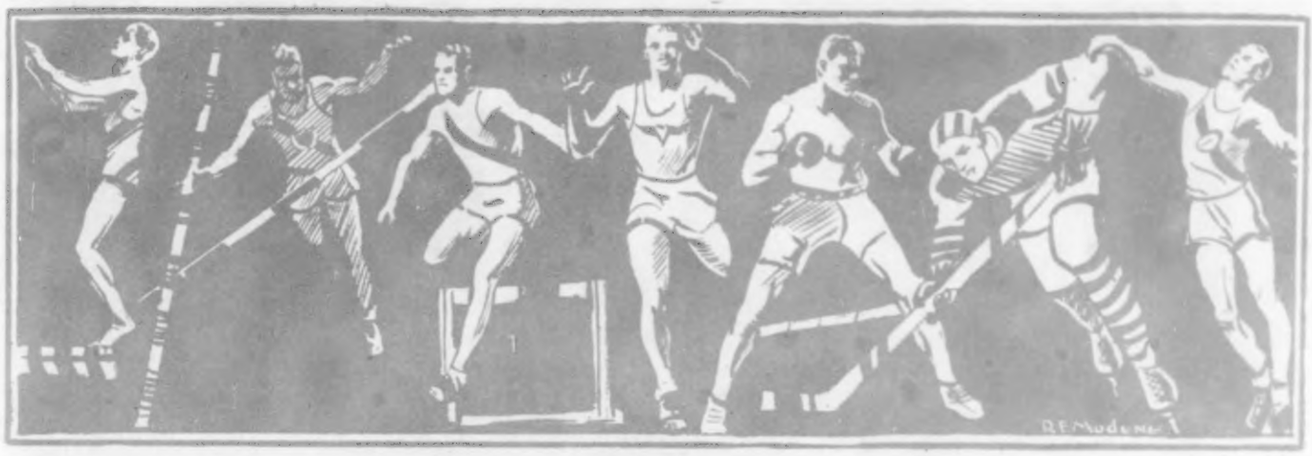
For years these ancient Olympic Games contributed to the building of a strong race. Then factors began to creep in that defeated the purpose for which the games were founded. At no time did the Greeks keep records of their athletic feats, but as time went on and the fame of the games spread, people from all over the ancient world gathered to watch the athletes. And with the increase of spectators came certain evils: hero-worship, too much publicity, undue prominence to certain athletes. Then came betting and, later, professionalism. It was the beginning of the end of the games, for the ideal had been lost.

Ancient Games Revived by Frenchman

Centuries later a lad of 17 by the name of Baron Pierre de Coubertin puzzled over the lack of stability in the French character. As he matured he studied the problem. He found that the French nation had lived for years under absolutism; its people had lost all initiative. Character of a high type had all too largely disappeared.

Using the income from a small fortune that had been left to him, Coubertin devoted his life in an effort to place the character of the French people on a higher plane. He traveled to England and America and in these countries he discovered what a big element outdoor sports were in the Anglo-Saxon life. He saw outdoor sports that allowed a vent for pent-up energies, that built healthy, strong bodies, that gave a mental ballast—something that prevented minds from becoming warped with wrong thoughts and wrong deeds.

The movement today toward an increased interest in outdoor sports, toward play and its resultant building of stronger bodies and the improving of the mental outlook is due in no small part to Coubertin, who suggested the reestablishment of the ancient Olympic Games. Of course there was opposition. There always is when great ideals are concerned. Even so,



OLYMPIC GAMES

By *Alfred E. Parker*

Coubertin persisted in his efforts to establish athletic competition among the nations. The old advocates of physical training for military purposes bitterly opposed him, as did also the strict adherents of formal physical training. In the end he won.

With the establishment of the modern Olympic Games came the reiteration of a great ideal: "All sports for all." A grand ideal! The fulfilment of such an ideal would contribute vastly toward the health of the world. Such an ideal would not do away with the 80,000 or 100,000 spectators at the football games, but it would encourage those spectators to be participators as well as watchers; such an ideal would seek to have all take part in sport.

But, one must ask, have the modern Olympic Games contributed to the fulfilment of such an ideal? The answer must be largely in the negative even though one would like to answer it otherwise.

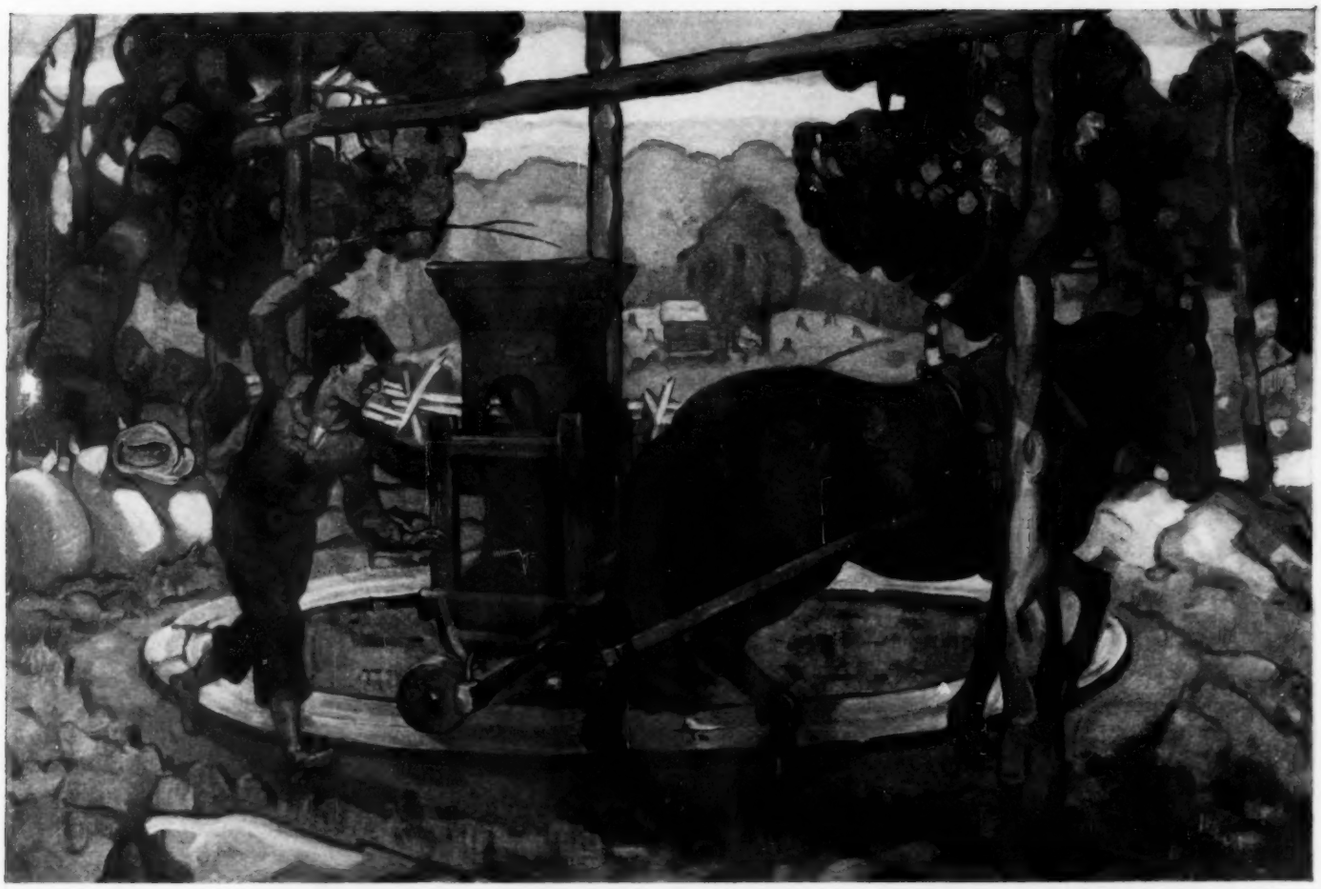
King Competition Rules

Many intruders have appeared on the scene to spoil the ideal and to make some of the participants, at least, circus performers. There is the thirst after records, after championships, after fame; there is the desire to win, a desire that outshines the ideal of play for the pure love of play. Competition has intruded. Competition, always a healthy element in sport and a developer of character when it is kept under a tight bit, has been allowed too much rein. Competition has run amuck, flirting with selfishness, degrading itself into professionalism parading as amateurism. And when competition so affects sport, sport ceases to contribute to the moral, physical and mental development of the race. Sport, ruled by King Competition, may be exciting to watch. It is not, however, sport for all. Throughout our life today you can find people bowing to King Competition.

In all too large a measure this is true of the Olympic Games. The stars rule. They are the only ones that count. What can be done, you ask? Do away with the Olympic Games? Do away with athletic contests in high schools and colleges? Of course not! Keep them up, reiterating more forcefully than ever before that participation by all in athletics, in play, is the one ideal that must ever be strived for. Every one can be a spectator, but every one ought to be a participator too.

It is the ideal that is being discussed here—an ideal that is being lost because too many people are thinking more of the contestants, of victories, of records and of championships than they are of any benefits that they themselves might secure from actual participation in games. It is the ideal that the ancients tried to put into their games, that Coubertin tried to revive in the modern Olympic Games that is lost. It is an ideal that seems to be easily corrupted; and it needs renewed efforts to bring it back to the ancient ideal. Fortunately, the Olympic Games Committee has always tried to cling to the ideal because it realizes that too much emphasis on winning is what ruined the ancient games.

"All sports for all." That is the ideal that has built worthwhile intramural sport programs in secondary schools and in colleges; that is the ideal that is yearly causing the building of an increasing number of municipal golf courses; that is the ideal that has built up playgrounds in large cities and that has resulted in the setting aside of great areas for recreation and play in state and national parks. That is the ideal, earnestly followed, that should take us out of the grumpy, complaining, business-crazy class and make us cheerful and healthy citizens.



LINCOLN and the DOCTORS

By MILTON H. SHUTES

PREFACE

THE study of the life of Abraham Lincoln is so unusually engrossing that any serious effort at a contribution thereto may serve as its own apology. No pretense to scholarship or completeness appears in this monograph. It pretends to be an inquiry into Lincolniana from a new vista. Excepting the discussion of certain characteristics, it is a compilation of hitherto scattered and unappreciated facts and bits of information—some entirely new—and the weaving of them into a narrative. The medical phase of Lincoln's life should be of real interest; so this book is offered in the hope that it will stimulate as well as meet that interest.

Acknowledgment is gratefully made to the encouragement and suggestions of John W. Starr, Jr., of Millersburg, Pa., and particularly to Paul M. Angle of Springfield, Ill.; to the aid of Robert P. Utter, professor of English at the University of California at Berkeley; to the editorial criticism and suggestions of F. Ray Risdon of Los Angeles, and to the kindness and the assistance of all other individuals with whom the author has communicated.

CHAPTER I

THE ancestral history of Abraham Lincoln reveals nothing that might cause the medical director of a life insurance company to hesitate in granting a policy to America's greatest son. His virile paternal grandfather, Capt. Abraham Lincoln, was killed in the forty-second year of his life by the arrow of an Indian and left five children and 1,200 acres of land. Bathsheba Lincoln, the widow, well born and strong of body and intellect, lived a pioneer's life and died at the reputed age of 110 years. As there is no knowledge of his maternal grandfather, except that he was well born, the medical investigator would find nothing of interest there. But Lucy Hanks Sparrow, his maternal grandmother, led a useful life until about the age of 61, leaving eight children and many grandchildren to honor her.

Thomas Lincoln, the father, survived the hardships of his life in Virginia, Kentucky, Indiana and Illinois, where he died in his seventy-fifth year; but his mother, Nancy Hanks Lincoln, succumbed when 37 years old to an epidemic disease possessing a high mortality.

From a medical point of view the idea of family environment and of immediate forebears known as "poor but honest" is not a bad beginning for any biography. Thomas Lincoln was honest and temperate, and possessed a keen sense of humor and a strong physique free from hereditary disease and tainted predispositions, and his wife possessed the same advantages to a more or less degree—something to be valued above great riches.

Thomas Lincoln lived with his bride Nancy in Elizabethtown, Ky., for two years and here was born in 1807 their first child, Sarah. If Nancy had a physician at that time, it was a Dr. Ebenezer B. Goodletter. He was followed in 1809 by a Dr. Thomas Essex from England. Soon after this, a Dr. William Sulcer of Holland arrived and Dr. Essex left the town. No doubt the Lincolns came in contact with these physicians but, so far, the records reveal only one who rendered professional service. About 1811, Dr. Daniel B. Potter arrived in Elizabethtown and soon built up a large practice, causing his only competitor, Dr. Sulcer, to move on. In 1814, however, during an epidemic of the "cold plague," he died and left to his young widow $1,560.33 in uncollected bills. A court commission collected $864.89½ for her of which amount Thomas Lincoln paid $1.46 due from a previous unpaid balance. There is no record of what his services were, when rendered and for whom. But as Thomas Lincoln had the mumps which necessitated an operation, Beveridge suggests that it was for this that Dr. Potter was employed; and it may be of interest to the suspicious inquirer to be reminded that Dr. Potter did not arrive in Kentucky until after Feb. 12, 1809.

No Doctor at Lincoln's Birth

On that memorable Sunday in February, on the Sinking Spring Farm, four miles from Hodgenville and fourteen miles from Elizabethtown, there was no medical aid. Thomas Lincoln had considered sending for Dr. Potter, but being already under obligation to that physician, he hesitated at "runnin' up the debt." Mrs. Mary LaRue Enlow, the Nolin Creek midwife, was engaged in another home on this eventful date, so she sent her young niece and assistant, Mrs. Peggy Walters, who, with the helping hand of an aunt or two of Nancy Lincoln's, satisfactorily rendered the necessary assistance. There were warm water, warm coverings and certainly a hot fire to cheer this puncheon-floored, single-roomed cabin. We know there were some dishes and a "bason," which had been purchased a short time prior to this February event. So with the help of the women and their crude obstetrical paraphernalia there was brought into that precarious world a husky infant, who from the very beginning seemed to have thrived in it.

When the boy was 3 years of age, the family moved twelve miles away to their Knob Creek farm, where they lived until the boy was 8. It was during this period that one or both of his old playmates, Dennis Hanks and Austin Gallaher, pulled him out of the river and rolled and pummeled him until the water poured from his mouth. Here he lived the normal life of a backwoods boy, but there is little authentic information concerning him except that he grew longer and faster than his companions. But they were not to see the length to which his body sprouted; that phenomenon was to astonish his friends and neighbors in Gentryville, Ind. Here he passed through the terrible, awkward years of male adolescence and early manhood, developing his long, powerful frame and feeding his searching mind on every printed page that he could find, buy or borrow.

Nancy Lincoln's Passing

And here, in southwestern Indiana, the 9 year old lad received an emotional shock from which he suffered subconsciously all his life—the loss of the parent who understood his desire for book learning and who gave him the sympathy and love that only a mother can bestow. Never strong, tall, thin and overworked, she became an easy victim of that mysterious malady the milk-sickness, or trembles, which in those days caused an appalling loss of life. Dr. Theodore Lemon of Danville, Ill., wrote to the Lincoln biographer Ward Lamon an excellent description of the disease and correctly attributed the cause to a vegetable origin. His description of the onset, symptoms and course is also quite accurate. But unfortunately the medical men of 1818-1829 did not know the exact etiologic factor, which we now have reason to believe is the ingestion of milk or meat from cows feeding on white snakeroot (Eupatorium urticaefolium) and rayless goldenrod (Aplopappus heterophyllus), nor did they have knowledge of a certain treatment that now consists in the proper administration of carbohydrates. Pathetic, sad-eyed Nancy Lincoln! Her end was possibly hastened by the blood-letting proclivities of Josiah Crawford on that poor body already dehydrated by the disease.

There was no physician within thirty miles of Gentryville, but the community had a "yarb and root" doctor of note in no less a person than the well known Josiah Crawford, for whom the boy Abraham split the many rails for the rain-soaked "Life of Washington." "Doctor" Crawford knew how to apply plasters and to give hot foot-baths, and he was generous with blue-mass pellets. He was also in great demand as a dentist and became adept with a pair of twister forceps for extractions. And not to be too far behind the times, he obtained a lancet and added the art of bloodletting to his accomplishments. On troublesome occasions, as in the case of

hemorrhages, he relied on faith cures and charms, such as thrice repeating the sixth verse of the sixteenth chapter of the Prophecy of Ezekiel: "And when I passed by thee, and saw thee polluted in thine own blood, I said unto thee when thou wast in thy blood, Live, yea, I said unto thee when thou wast in thy blood, Live." As Abe and his sister Sarah "hired out" to him, they undoubtedly at times became his willing or unwilling patients. Probably the boy had many provocations for his nicknaming the doc, "Old Blue-Nose Crawford."

While still in his early teens, overgrown and impatient of the irksome task of driving an unenthusiastic horse around a grist-mill, Abe suddenly applied a whip and yelled: "Get up, you old hussy. Get up—" when the old gray mare let fly her unshod heels and caught the lanky boy somewhere on his head. His father was sent for and hurried the senseless boy home, where he was washed and put to bed. As consciousness returned in the early morning, his first words were: "—you old hussy," the remainder of the sentence he had flung at the horse prior to being knocked down. This form of arrested cerebration resembles the interrupted line of thought observed in the petit-mal (mild) attacks of epilepsy; to Lincoln it was an experience that intrigued speculation all his life, and he often had occasion to relate the incident as an example of the mysterious working of the brain's machinery.

As the boy's body outgrew his backwoods clothes, so his mind outgrew his pioneer environment until he became restless and dissatisfied in his father's home. Thomas Lincoln, still seeking the green grass beyond, and using another threatened siege of the milk-sickness as an excuse, planned a home farther west in Illinois. Abe, grown to manhood, loving his foster-mother, Sarah Bush Lincoln, and remembering his own mother, agreed to remain with the family group until they were settled in their new cabin on the Illinois prairies. That done, being of age and filled with a restless ambition, he left his own kith and foster kin and turned his face to the Sangamon country and destiny. But before he set his feet on that highroad they became badly frozen during the famous "winter of the big snow," and Abe was comfortably marooned for weeks in the big home of Major William Warnick, sheriff of Macon county and father of six girls and five boys.

(To be continued)

The Escape into Alcoholic Intoxication

A CONTENTED man does not use alcohol. Most of us are willing to face the mental and physical stress that is a part of life's conflicts without resorting to a narcotic. Alcohol is usually taken so that one may feel and enjoy life more abundantly or may avoid life's conflicts by shutting oneself behind a wall of alcoholism.

The problems and the underlying reasons for the excessive use of alcohol are one and the same; they lie in the personalities of the individuals. Each addict uses his alcohol for a reason or cause that is sufficient unto himself. The nature of the disorder that impels him to resort to intoxicants is mostly psychologic, not physiologic or pathologic.

Many persons are unsuspected potential alcohol addicts; they get along like the rest of us until alcohol or narcotic drugs come into their lives. Many persons not now addicted to narcotics have taken much liquor at some time in their lives. The potential narcotic addict in time becomes the chronic alcoholic addict. Those persons who do not succumb are not always the stronger willed but excessive indulgence holds no appeal to them and often they get more pain than pleasure from it. So the experience is not repeated. When the toxic effects begin to give more grief and pain than pleasure, they are willing to quit until their system clears up so that they can get more pleasure than pain.

When an addict says that he takes his alcohol only to feel normal his ideas of normal are normal plus. Life and surroundings are brighter to one under the influence of a moderate amount of alcohol. It serves hurt feelings and covers up the hard facts of life as they really are. This pleasure effect of narcotics varies in different persons from a feeling of comfort and relief to a wild, delirious jag.

The craving for narcotics is not purely a physical need, but is chiefly mental. It can be replaced by some other great desire. When there is not too much mental deterioration, we can sometimes produce a mental "kick" that is bigger than the idea or desire or need of a narcotic. Then our treatment will be successful.

The solution of alcoholism, then, does not rest on the administration of any specific cure, but rather on the removal, where possible, of the underlying causes for which the addiction is merely an expression. The causes vary in individual cases; it is not a mass problem.

For some alcoholics, good health plus normal life do not replace the sensations that narcosis brings, and the possessors of these morbid types of personality will use narcotics as long as they live and as long as narcotics are available.

—C. E. SCELETH.

FIRE ENGINES

A Poem for Children

Run where the
Children are
Passing the
Gate.

Engines
Are ripping
Along.

Run like
The wind,
The fire
Won't wait.

Run to
The clang
Of the gong.

Engines are
Puffing in
Glittering
Rows,

Eager to
Stifle
The fire.

Madly the
Firemen
Handle
The hose,

The flame
Leaping higher
And higher.

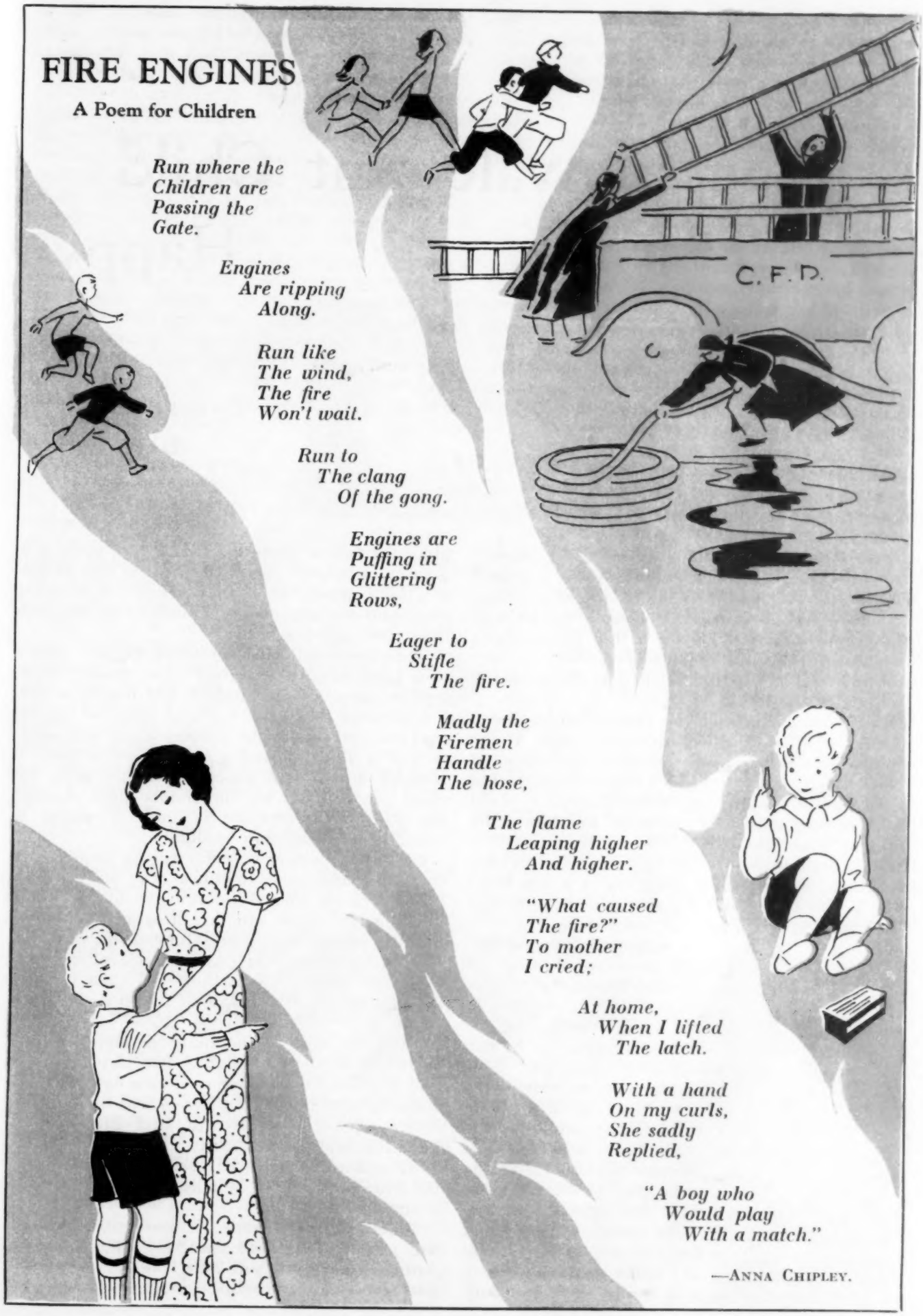
"What caused
The fire?"
To mother
I cried;

At home,
When I lifted
The latch.

With a hand
On my curls,
She sadly
Replied,

"A boy who
Would play
With a match."

—ANNA CHIPLEY.



Keeping The Convalescent Child Happy

By *Louise Price Bell*

A PERSON takes unto himself a magnitudinous contract, when he agrees to keep happy the irritable child just convalescing from a siege of diphtheria, pneumonia, scarlet fever or any equally devitalizing disease.

It is a comparatively simple task to keep the recuperating "mumper," "measler," or "chickenpoxer" busy and amused, for at the most his convalescence extends over a period of days, but the major infectious diseases require a period of convalescence lasting weeks and sometimes months. Then it is that the mother's originality, ingenuity and versatility, to say nothing of patience, is stretched to the breaking point.

Let us first consider the child who has been seriously ill and is beginning to chafe at his bonds, who wants to do something but does not know what, or who knows emphatically what he wants to do but cannot be allowed to do it because he must avoid exertion. For this child, a clear glass globe with two or three goldfish and a castle through which they may swim may be placed on a table at eye level; a few pebbles and a bit of seaweed may be added. The listless child will find the fish fascinating.

A windmill fastened outside the window in such a position that the child can see it from any position in bed is interesting to the inert youngster, for he can tell each day just how windy it is, as well as the direction in which the wind is blowing.

The child will enjoy cut flowers and plants in the sickroom, but even more will he enjoy watching bulbs grow. Plant two or three narcissus or Chinese lily bulbs in pebbles or in soil, set the bowl in a dark place for two or three days, and then place it in a sunny window. The little invalid can almost see them grow; when they reach the budding stage and one expects every hour to see the buds open, they are magnetic.

Ordinary field oats, scattered evenly over a thin layer of dirt, covered with another layer and set in a sunny window, are fun to watch, too, because they grow tall and green so rapidly that one can repeat the process again and again within a short period. A flat flower bowl is suitable and if it is placed on a low table the child can actually see the shoots burst through the soil, so immediate is their response to warmth, moisture and sunlight.

In the late winter or early spring branches of forsythia and pussy-willows may be cut and brought in for forced blooming in the sickroom long before they are in blossom elsewhere. Simply plunge them into lukewarm water as soon after cutting as possible and place them in a light place. Soon they will start to open and the breath of spring will sweep through the room.

Later, if one is fortunate enough to have access to a woods, hepatica (mayflower) roots may be taken up, transferred to a flat bowl and watched grow. The old leaves will die, and the lovely mossy new growth that includes the hepatica buds will appear. If the plants are kept well watered, it will be no time at all before the little patient will be able to say, "Oh, I have a mayflower!"

When the first fronds of the lily-of-the-valley are pushing through, carefully take some up with the adjacent soil and transfer them to a pot. Their growth will be more slow than that

of the hepatica but equally interesting to the child. These should be kept away from the sun, consistent with their natural environment.

In the fall, there are always beautiful leaves, bittersweet and sumac, which may be artistically arranged. And one need not speak of the countless blossoms with which the sickroom can be brightened in summer!

A radio is a source of joy to the convalescent child. Often it is a simple matter to place the speaker in the child's room, and with this arrangement, he may hear not only the charming stories and dramatic programs planned especially for children but musical programs by the masters. Often, too, the child may hear his requests played or sung, as most stations have such programs from time to time.

One little friend of mine, who endured an extremely long period of convalescence as a result of a badly crushed foot, derived a great deal of pleasure from a canary sent by an uncle. This bird, singing almost constantly, brought far more happiness and cheer to the lad than the uncle had imagined. The bird was a real companion and, may I add, a much more sane companion than many of the visitors who came to call and said the wrong things, leaving him in a less cheerful mood than they had found him. Not so with his feathered friend! He emitted nothing but cheerful song from morning till night.

Glass prisms, such as are found on old-fashioned candelabra, are a delight to the child on sunny days. Suspend two or three by a heavy thread from the curtain rod at the sunniest window. Have them all at a different length, and at the mere suggestion of sunshine the result will be a bevy of "light birds" dancing around the room. These "light birds" will captivate every child; they will never become commonplace, because, as Froebel has said, "They stimulate the child's esthetic gratification."

In this same sunny window, keep a window-box with whatever flowers or bulbs the child likes best. A narrow box, just the width of the sill, can be constructed by an older brother in a few minutes. After being filled with a layer of pebbles for drainage and some well mixed loam, it will furnish continual blossoms. Pansy plants are particularly satisfactory in such a box.

The child who is able to sit up in bed or perhaps in a chair presents the most difficult problem, because he wants to be doing something most of the time. Most children enjoy drawing and coloring; fashion magazines or books sold for that purpose may be used. Water colors are not satisfactory, because there is always the danger of spilling. This may irritate the sick child, to say nothing of making additional work for the overtaxed mother.

If the invalid is very young, any of the handwork he has in kindergarten, such as paper folding, free cutting, tearing and designing with parquetry squares or circles, will prove interesting. Paper dolls hold a fascinating appeal to little girls, while boys will enjoy equally the cutting out of engines, tractors and airplanes.

Posters, such as are found in all the children's magazines, involve coloring, cutting and pasting. Besides the fun of making, the child will sense the added pleasure of having the completed poster as a decoration for his room.

Transparencies are fun, too. For instance, to make a tulip transparency, draw a tulip on rather heavy white paper. Cut out the entire drawing but leave the paper intact. Over the space in which the flower was cut out, paste red or yellow transparent paper, and over the rest of the paper, paste green. Now reverse the sheet, paste in the window, and the result will be a bright flowered tulip plant. The same may be done with churches by making transparent windows, and with goldfish globes by pasting two or three goldfish on the back of the globe, simulating real fish swimming in the globe. Ordinary waxed paper may be used for this transparency, since it looks like clear glass and water.

Cross word puzzles help to pass away the time and are worth while because they help to increase a child's vocabulary, as well as his understanding of the meaning of words. If a dictionary is used constantly while working, and the child becomes interested in entering all new words in a little notebook, the augmentation of his vocabulary will be surprising.

If the recuperating child enjoys writing, a diary, or better still a journal, will amuse him, and in later years will be a prized possession. He may enjoy looking through the advertisements in juvenile magazines, in which numerous offers of small packages of guaranteed products may be secured for the mere asking. If the mother takes it upon herself to act as critic when the correspondence is completed, the child's letter writing technic should improve.

Scrap-books are old friends, but children always enjoy them. One little girl who had been ill for a long time and had received dozens of attractive "convalescent cards" made a scrap-book of them, perfectly indexed as to the senders and the dates. She had much fun doing it and often goes through the book now, reminiscing and enjoying it all over again.

If the child has an older brother or sister away at school or college or a grandparent in another town, he will enjoy making an illustrated letter. It will please the recipient and will occupy an unusual amount of time on the part of the little letter maker. To make the letter, simply use pictures cut from magazines instead of written words to convey the meaning; sometimes pictures will tell almost the whole story aided by prepositions and conjunctions. For instance for "Dear Grandma," the child may use a picture of a deer and one of a grandmother. With a little help from the mother, the youngster will be able to make a clever letter and will enjoy it so much that he will not want to stop at one. His originality and powers of observation are stimulated by such means.

Meal time is usually an important event and a pleasing break in the monotony of the convalescent child's day. One should be careful to keep it that way by making the tray as attractive as possible. It is easy to dress up the tray on special days by carrying out the green color scheme on St. Patrick's Day, yellow on Easter, red, white and blue on Decoration Day, Fourth of July or Flag Day, and red and green on Christmas.

Prepare Lunches Attractively

But it is on the ordinary days, one after another, that one is likely to be devoid of ideas. On these days, use different colored paper napkins as a covering for the tray, with a matching napkin for his own use. This will give the tray a different appearance each time, as well as tend to reduce the laundry bill, for one meal is usually the limit of either napkin or tray cover used by a sick child. These napkins can be purchased inexpensively in all colors and in designs of interest to children. The wise mother will vary the china and glassware, too, using sometimes the child's regular juvenile dishes and sometimes different pieces of the better china and glassware.

A grill plate, purchasable for a nominal sum, may add much in making the meal appealing. The bright-colored vegetables arranged in the different compartments will look twice as delicious to the invalid as they do served on a conventional dinner plate. Garnishes are a great help in the sickroom, as on the table, and a bright red cherry atop the custard or salad may make the difference between it being eaten with zest or only after coaxing.

Some Stimulants to Appetite

Milk or bouillon tastes much better through a glass drinking tube or an ordinary soda straw, and the cream for the child's cereal is much sweeter if poured from a little "dog pitcher." Bread and toast cut in strips or fancy shapes with cookie cutters is more delectable than plain pieces, while omelets with asparagus or mushrooms hidden on the inside are eaten with much more relish than plain coddled eggs. Milk may be combined with many health drinks on the market to give variety, while a little picture, pasted on the bottom of the glass, will encourage the child to drain the glass.

And so, if the mother knows that the child is to have a long convalescence, she can do much toward keeping him happy by suggesting interesting occupations and surrounding him with a pleasant atmosphere. For as to suggestions on the part of the child, little girls will have few suggestions other than playing with dolls, while little boys will reach their limit when they advance building blocks or spin a top! For older children who enjoy reading, a wealth of pleasure and knowledge may be gained from good books during a recuperating period. With the delightful juvenile volumes being published constantly, to say nothing of the ever popular children's classics, the child may be kept supplied with excellent reading, and should never want for good literature. Care must be taken that the child's position is good and the lighting is correct, however, for eyestrain is more severe during convalescence than in normal times.

Practice on an inexpensive ukulele will please the child, and with a simple instruction book, he will be able in a short time to render little tunes much to his delight.

Do everything possible to keep the convalescent child happy even though it becomes a tiresome task. It will be worth the effort.

Sometimes a man will obey his doctor when he will not listen to his wife.

By *Wingate M. Johnson*

Are DOCTORS NECESSARY?

AN intelligent layman recently asked a rather embarrassing question. A prominent physician had confided to him that 90 per cent of people who get sick would get well without any medical advice. When I agreed that this estimate was probably right, he then asked, "If that is true, do we need our doctors?"

This question is really a pertinent one and deserves a thoughtful answer. If I remember aright it was raised many years ago by Elbert Hubbard, who offered to debate with any one the affirmative of the query, "Resolved, that preachers, lawyers and doctors have done civilization more harm than good." As a medical man I do not propose to attack or defend the first two professions named in the late Mr. Hubbard's broadside, except to admit that their education does not cost nearly so much as does that of the doctors; hence they are not under the same moral obligation to repay society for the time and money invested in their mental furniture.

Dr. Charles Gordon Heyd has estimated that the premedical and medical education of a doctor costs $16,000, and that the six years' loss of earning capacity while he is being professionally educated adds $12,000, making a total of $28,000 invested. Thus it will be seen that a modern doctor is a high-priced product, and unless he is necessary to society it is hardly fair to spend so much on him. It is true that the physicians of the United States do much to repay society for their education by treating one eighth of the population without charge. This means a contribution of at least $365,000,000 a year. If, however, their services are needed in only 10 per cent of these cases, much of their contribution will have to be discounted.

True to my scientific training, I first verified the statement that 90 per cent of patients would get well anyhow by an inspection of my call book for the past month. From it I was forced to admit that I could hardly claim actually to have rescued even 10 per cent of my patients from an immediate death. But the same inspection also reminded me that a medical man has other functions than merely to snatch victims from the clutches of the grim reaper. Granting the truth of the statement that 90 per cent of sick people would get well without doctors, and even adding the obvious truth that many of the remaining 10 per cent die in spite of the best efforts of medical men, I believe that a good

case can be made out for the continued need of my profession. Let us see.

Even though the average sick man has ninety chances out of a hundred for recovery, is not the 10 per cent risk of dying worth considering? Even though this must be divided between the doctor and death, is not the help of one trained to fight for life worth having? If there were some means of knowing just which illnesses would be absolutely free from complications and which would need close watching, the problem would be simplified, but pneumonia often follows an apparently mild influenza, and even a tonsillitis may lead to serious impairment of the kidneys or the heart. Even the mild rheumatism of childhood that is laughed off as "growing pains" may leave a heart crippled for life.

Furthermore, to the family of one rescued from death, even for a few months, the gratitude felt for the one timely visit far outweighs the feeling that dozens of visits might have been omitted. Here I can speak from a layman's point of view. During the last eight years of his life my father had attacks of angina pectoris—at first months apart, but gradually closer and closer together. He was carefully watched by one of the best doctors I ever knew. The tact and skill with which this doctor managed his case kept him happy and useful in his work up to the last. One night a severe attack came. The doctor was summoned in haste and by heroic work brought him back from the brink of the grave. By the time I had made the 100 mile trip from my home to his, he was out of danger and lived for a year afterward. Without the timely and skilful work of this doctor, we should have lost the most satisfactory year of our father's life—one that crowned a career of usefulness. It gave us an opportunity to let him know how we loved him, and he, a most affectionate man, delighted in it.

Doctor Brings Relief from Pain

Another argument for the necessity of doctors is that they have functions other than the occasional spectacular saving of life. The most painful affections are for the most part never fatal, yet few men would care to endure them long without help. Any man who has writhed in the agony of kidney or gallstone colic and experienced the blessed relief that follows a hypodermic injection can understand why Sir William Osler often referred to morphine as "God's own medicine." Any doctor who has seen the tortured features of the victim relax into tranquil slumber will agree with the famous Doctor Sydenham that without morphine few men would be callous enough to practice medicine. Even the lesser pain of migraine, acute arthritis or a bone felon, while in no wise fatal, will cause the sufferer to bless the one who brings him relief.

It is possible to live for years and years, perhaps an average lifetime, despite the gnawing, burning, boring discomfort of a duodenal ulcer; but life is hardly worth living for its owner, not to mention his poor family.

A woman in the period before, during and just after childbirth is in relatively little danger of dying, yet few civilized women today would care to dispense with the services of a trained medical man. She wants to be kept in good physical condition beforehand and to be left in good condition afterward. Neither could the normal baby be called desperately sick, yet few would deny its right to the advice of a medical man as to its diet and care.

For Diseases That Are Not Fatal

To one who suffers from the maddening irritation of eczema or certain other skin diseases, the fact that they are never fatal is not so consoling. It may be admitted that the stubbornness of some skin affections gives an uncomfortable plausibility to the reason a famous dermatologist is said to have given for his choice of a specialty—that his patients never got him out of bed at night, never died of their ailment, and never got well. In most cases, nevertheless, either a cure or great relief can be given.

The venereal diseases are rarely of immediate danger to life, but they certainly contribute much to human misery. Their treatment helps to keep our social structure as intact as it is.

Even such a simple device as a pair of spectacles, properly fitted to the eyes of a book-lover to whom reading had become an ordeal instead of a pleasure, would make him rise up and call his benefactor blessed.

Since the discovery of anesthesia and asepsis, surgery has made giant strides. Its results are often dramatically life saving, as in acute appendicitis, ruptured duodenal ulcer, strangulated hernia or a depressed fracture of the skull. Most operations that are done, however, could not be classed as life saving but rather make life more worth living. It is possible that Thomas Carlyle, who lamented that he was "the miserable owner of that diabolical arrangement called a stomach," might have taken a less jaundiced view of life had his gallbladder been removed or proper treatment for a duodenal ulcer been given. The miracle that Christ performed in curing the woman of her "issue of blood" is repeated almost daily in most modern hospitals.

Few men ever die of a broken bone, yet who would care to go through life with the crooked arm or leg that an unskilfully treated fracture would leave? Nor would the parents of a club-footed baby deny the usefulness of a skilful orthopedist, even though the deformity would not subtract one minute from the life of their child. And any mother who has seen the

hideous deformity of a harelip smoothed away by the skilled fingers of a plastic surgeon would never question such a man's right to professional existence.

With the virtual extermination of the most menacing of the infectious diseases, the constitutional diseases have taken first rank as causes of death. Since man is not immortal, he must die sooner or later. When certain causes of death cease to be operative, others must take their places. The medical profession deserves much credit for eliminating many of the infections; but as they have become of less importance, the constitutional diseases, such as heart disease, cancer and diabetes, have assumed the leading rôle. Twenty years ago tuberculosis led all causes of death; now it is far behind heart disease and cancer. Science has done little to stay the circulatory diseases. Indeed, they are on the increase, though this increase is partly relative, owing to the decreased incidence of the infectious diseases. It is highly probable also that the modern so-called high tension manner of living has contributed much to this increase. Much of this is out of the control of the physician, but sometimes a man will listen to his doctor when he will not obey his wife and will reform more of his habits for a medical man than for his minister.

One of the greatest fields of usefulness for the modern doctor is in the field of mental disease. The same high-tension life that taxes the circulatory system also greatly adds to mental and nervous strain. Many a mind that would have borne without any trouble the comparatively simple life of our forefathers gives way under the stress of modern complex civilization. Some of these patients with mental ailments are hopelessly incurable and must be confined in an institution for the sake of their family and of society in general. The great majority of mental diseases, however, are not so pronounced as to be totally disabling. Many victims of mental suffering are considered average members of society. They may carry on their daily tasks creditably; may be useful and honored members of a church and of various social organizations, yet may be living their lives under a cloud and having literally to drive themselves to their work and even to their play.

Life would have been more worth living to Carlyle without his "diabolical" stomach.

Not even in the realm of physical disease can the doctor render a greater service than in helping the borderline mental patients to solve their problems. Some of them can be cured by a few heart-to-heart talks, in which they are told how to substitute wholesome thoughts and habits for unhealthy ones, just as a patient with diabetes or pellagra may be taught to substitute the right kind of food for the wrong kind.

There are few doctors who would claim to be trained psychiatrists, but there are many who nevertheless practice its principles daily. In that unique novel, "Doctor Serocold," which is devoted to one day's work of an English general practitioner, one must be impressed by the constant application of his hard-earned knowledge of human nature. Indeed, how often is the expression, "He knows human nature," used in speaking of some such character as was typified by Dr. Luke Serocold or Dr. William MacLure.

It is generally agreed by those who know most about the human mind that fear is the greatest enemy of mankind. It is the most subtle poison that can be instilled into the mind or into the body. Indeed, the conception has gained ground that the body and mind are an inseparable unit, and each influences the other. Let any one who doubts this eat a hearty meal just after a bad piece of news. Even if he is able to swallow it, he will find it will not be digested as it should. It may be vomited hours later, quite undigested, or it may lie for hours like a heavy lump in the stomach, then pass into the intestines and irritate them into diarrhea.

One of the chief functions of the medical profession is to combat, as far as possible, the effects of fear. Perhaps the greatest advance made in child training is the recognition of the harm fear does and the effort to make the child as nearly fearless as possible. Unfortunately, however, fear does not cease with adolescence. The fears of adult life are just as nerve wrecking as are those of childhood. Among those oftenest encountered are the fear of financial reverse, of disease, of losing one's job, of failing to succeed in business or in society. It is not possible, of course, to allay all these fears in patients; but by cultivating the ability to get inside the patient's mind figuratively

and visualize its workings, the physician is in a better position to offer valuable advice. Conversely, the patient is helped by pouring out his troubles—a "mental catharsis," as it is called. Often all that he needs is some wholesome advice which any sensible, sympathetic man could give but which carries more weight because it is given by a doctor.

The strongest claim that the medical profession can make for survival is that medical science deserves credit for the fact that a sick man's chances of recovery are ninety out of a hundred. One of my colleagues was the only child in his family who survived an epidemic of diphtheria that carried off a brother and sister. Every child in the houses on either side of him was strangled to death by this awful disease. One epidemic destroyed scores of children in this town alone. Within the last eight years I have not seen more than eight cases of diphtheria, none of which was fatal; and my experience is duplicated by other physicians.

What has made the difference? First, the discovery and use of diphtheria antitoxin, which if given early reduces the mortality from 50 to about 1 per cent; second, the discovery of a method of vaccinating against diphtheria, which prevents it altogether, and which within the last ten years has almost wiped it out. Until recent years, typhoid fever and dysentery took heavy toll of human life every year. Now with improved sanitation, vaccination against typhoid and methods of rendering milk free from harmful bacteria, they are almost extinct.

Nine Years Added to Life Span Since 1900

Yellow fever alone in 1793 killed 10 per cent of the population of Philadelphia; likewise it prevented the French from building the Panama Canal. It is said there is a Frenchman buried under every tie of the Panama railway. Smallpox is reported to have killed half the American Indians. Both these diseases are now medical curiosities. Cholera, with its 50 per cent mortality, and bubonic plague, with an even higher death rate, have been subdued. Many other victories over disease might be mentioned but these are enough to prove that doctors deserve some credit for bringing the mortality of sickness in general down as low as it is. When it is considered that three centuries ago the average life span was only twenty years, whereas it is now nearly three times as much, it will be seen that the medical profession has not been idle. Even within this century at least nine years have been added to the average life.

There is no better way of answering my friend's question, "Do we really need doctors now?" than to reflect just what would happen if all doctors were suddenly wiped off the face of the earth. Whether or not hospitals were also abolished would matter little, for they would be useless without doctors to man them. Quarantine laws would be void, for there would be no medical officers to decide what patients should be isolated. But let the question be answered by a quotation from Dr. Howard W. Haggard:

"Let us consider what would happen to New York or London or any other large city if it were deprived of the protection of medical science. . . . The pestilences would return. Epidemics would sweep across the country and within a decade the greater part of the population would have been wiped out. Even those advantages which we owe to the physical sciences and to engineering, instead of assisting in protection, would rather contribute to the spread of disease. Not only would great cities dwindle to a fraction of their former size, but in these disease-ridden towns the people would be sickly and generally short lived. Large sections of the world which are now prosperous would become uninhabitable. Yellow fever would return to Panama and block traffic through the canal. Such facilities for travel as the railroad, the steamship and the airplane would spread disease with far greater rapidity than could the stage coach or the sailing ship. If the measures of preventive medicine were lost, . . . every facility for rapid transportation would be equally effective for the rapid spread of disease. . . . Diseases now almost forgotten would return to take their places with the existing pestilences. . . . Surgery would be the rough wound surgery of the ancients. . . .

"It is not mere imagination, but the cold and literal truth, to say that modern civilization and the use of the inventions and discoveries of physical science would be utterly impossible were it not for medical protection."

Modern Civilization Dependent on Doctor

Dr. Haggard's picture of the modern world without doctors is a horrible one, but it is indeed "the cold and literal truth." The great discoveries of medicine have come so rapidly within the last fifty years that it has been difficult to evaluate them individually or collectively. Numerous life-saving procedures have become so simplified and commonplace that they make little impression on the millions who are benefited. They are simply taken for granted. Sir James Simpson said of vaccination against smallpox, "The lancet of Jenner has saved far more lives than the sword of Napoleon destroyed"—yet a hundred people honor the memory of Napoleon for every one who even knows who Jenner was. Fortunately, however, vaccination confers just as much immunity on those who never heard of Jenner as on his most ardent admirers. As its crowning glory modern medical science may claim to have come that people not only might have life, but that they might have it more abundantly.

BERIBERI

By J. C. Koch

Cultivating the rice fields in Cochin China.

BERIBERI is a disease that has been of long standing particularly in Eastern Asia, Japan, the Polynesian Islands, the Philippines and Brazil. In the extreme southeastern corner of Indo-China, in a province called Cochin China, many persons eat appetizing dishes of polished rice, a dish far more attractive than the whole rice; moreover many of these persons do not live where they can get fruits and vegetables. As a result in one of the richest provinces of Indo-China an increasing number of people have been dying every year from a disease called beriberi. Whereas in 1916 only 988 were reported to have beriberi and 197 died, in 1928 there were 3,425 cases and 600 deaths.

The disease has in turn been associated with moist, warm climates, with the prevalence of a rice diet, with the possible deterioration of rice to a toxic food in these climates, and finally with the lack of an important vitamin in the diet.

The disease manifests itself in various degrees of severity and in several types. In man the most usual and earlier form is detected by an unsteady gait with weak legs, sensitive calf muscles, some swelling of the legs and palpitation of the heart, especially after exertion. Later, general paralysis and muscular atrophy develop.

In another type, the wet atrophic form, the symptoms described above are accompanied by puffiness of the ankles, thighs and back, decreased excretion of urine and a more marked disturbance of the circulation. The edema, or swelling, may be so marked that the muscular atrophy and general emaciation may not be apparent; however, if treated successfully, the swelling promptly disappears with a marked urination and then the emaciated condition is easily observed.

The acute pernicious form usually develops suddenly either primarily or after one of the other forms. Excitement and overexertion may be contributory factors toward the sudden development of the symptoms; namely, marked pounding of the heart, rapid pulse, pain in the heart region, labored and irregular respiration, nausea, vomiting, diarrhea and marked failure to urinate. In the acute form death may occur in from a few hours to several weeks after the onset of the acute symptoms. The death rate was 60 per cent or higher in some localities and in certain outbreaks, but with the knowledge and treatment now at hand the mortality has been diminished to considerably less than half that number.

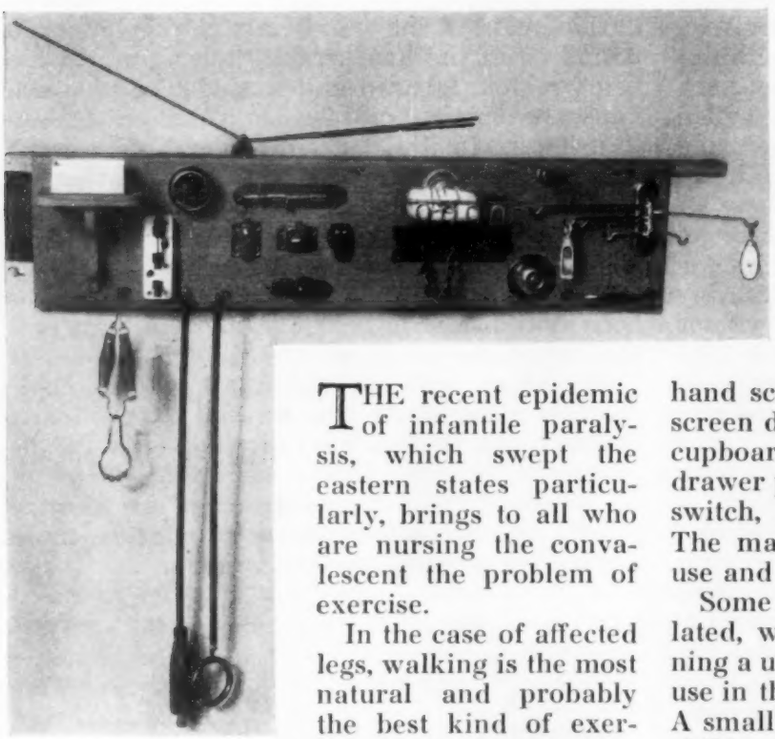
The most uniform and marked pathologic changes observed in human and experimental beriberi are the degenerative changes in the nerves of the legs. In the early stages some of the fibers of the peripheral nerves are affected but later the degeneration progresses more toward the central nervous system.

Threshing rice in the primitive fashion still in use.

The most significant contribution toward solving the cause and treatment of beriberi was made by Eijkman in 1896. He observed that a disease similar to human beriberi can be brought about in chickens by feeding them only white or polished rice, and that the addition of the bran, obtained in polishing rice, to the diet cured or prevented the disease. He later showed that an alcoholic extract prepared from rice polishings possesses the same curative properties. His interpretation was that the polished rice contains a toxic substance and that this is neutralized or counteracted by a substance in the rice polishings.

His observations have been confirmed repeatedly and the studies have been extended to other animals and other foods with the result that today beriberi is considered a true deficiency disease that can be prevented or cured by having a sufficiency of the antineuritic vitamin B in the food. This vitamin is sometimes called water soluble B, or vitamin B_1 or F. The numerous investigations with carefully controlled diets on animals show that the disease can be produced in pigeons, rats, cats, monkeys and dogs by a great variety of specially prepared diets free from the antineuritic vitamin.

The vitamin is widely distributed. Yeast is a particularly rich source; then follow the common food seeds and especially whole corn, wheat, rice, oatmeal, millet and alfalfa. In these it is present in the outer layers as well as in the embryo. The green parts of plants as well as the tubers, such as carrots and potatoes, and most animal tissues, especially heart, liver and kidney, also contain the vitamin.



Exercise Board for Convalescents from Infantile Paralysis

By *Taisia Stadnichenko*

THE recent epidemic of infantile paralysis, which swept the eastern states particularly, brings to all who are nursing the convalescent the problem of exercise.

In the case of affected legs, walking is the most natural and probably the best kind of exercise. Paralyzed arms and hands are helped by massage, but this is not sufficient. Exercise that will bring into use and require the coordination of most of the muscles of arm and hand is important.

Various manipulations with the arm and hand in the form of gymnastics will develop and strengthen the weakened muscles, but these manipulations require a great deal of attention on the part of a nurse and are tedious.

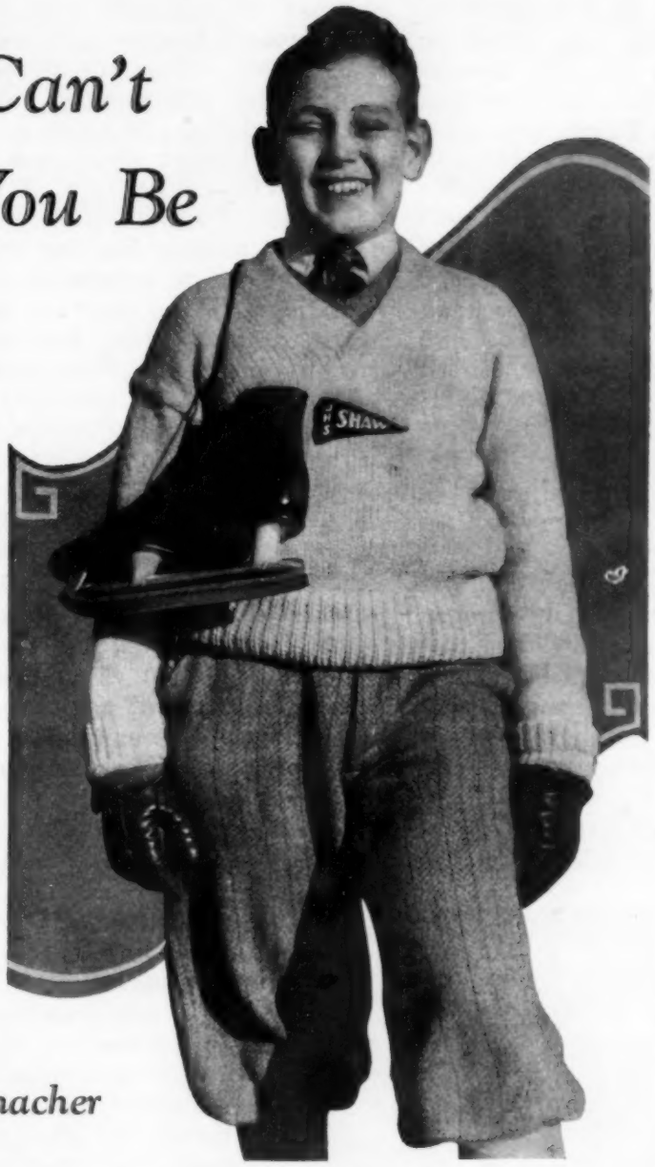
I have made an exercise board with a number of articles attached to it, and a patient recovering from paralysis has been using it with considerable benefit.

A plain board 30 inches long and 7 inches wide, with a shelf 36 inches long, can be clamped to a bed or a table with iron clamps or wooden hand screws. A number of articles, such as a screen door spring, bird's cage spring, sash lock, cupboard latch, cupboard catch, barrel bolt, drawer pull, utility hook, snap switch, knife and switch, are attached to this board by screws. The manipulation of all of them requires the use and control of various muscles.

Some of the articles can be easily manipulated, while others are difficult. In the beginning a utility hook may be found of considerable use in the development of the sense of direction. A small object or a toy for use in the case of a child may be hung on one of the hooks with a request to reach that hook. The springs are good for strengthening the arms, while switches strengthen the wrist and fingers. Numerous operations can be performed with a cake of soap and a small table on the left side of the board. A towel rack, seen on the top of the board, is for elbow and shoulder exercise.

All these articles can be purchased at a hardware store or at a 5 and 10 cent store. The number of articles can be increased and changed and new articles can be easily added to introduce variety and novelty. The making of the board here described and illustrated required a little more than two hours. This gymnasium can be readily constructed in any home with the aid of simple tools.

"Why Can't You Be More Like Johnny Groves?"



IF YOU MUST PICK A MODEL FOR YOUR SON TAKE ONE OF ANOTHER DAY AND LOCATION

By

E. S. Rademacher

"WHY can't you be more like Johnny Groves?" This is the pet phrase of the exasperated mother by which she expects to occasion a magic transformation of behavior and personality in her child. Like the magician's "hocus-pocus," it must be followed by considerable ritual. All the fine traits of Johnny Groves are enumerated in proper series including his politeness, his obedience, his honesty and his thoughtfulness toward his mother. This is followed by a recital of the fewer privileges and the lack of material things Johnny possesses. Lastly, the ritual ends with the time-worn theme, "You ought to be ashamed of yourself!" Seemingly a proper state of shame is a necessary intermediary step in the transformation.

Mothers do not consider in what light Johnny Groves is accepted by the group. He may be the essence of all that is undesirable so far as group attitudes are concerned. Yet this is the model with which a mother is now attempting to inspire her son. Being put to shame on account of this boy is certainly going to bring about a transformation, but as in the tales of old the transformation that occasionally follows is sometimes entirely different from that which is anticipated.

The son will be bewildered by the shortsightedness of his parent. Possibly Johnny Groves is one of those boys who plays up to adult situations, a type of behavior that does not add to his popularity among his peers. Teachers' pets and mothers' darlings would probably eagerly exchange their last lingering virtue if in return they might be accepted as a regular guy by the rest of the fellows. Or Johnny may be one of those repressed, apprehensive, withdrawn individuals whose only recognition is that which he gets from his parents' solicitude. His willingness, unusual obedience and studious traits may be the actual earmarks of an unhappy, unadjusted child. True, with such servility, he is not a problem to his mother or teacher but this tells nothing of his happiness or integration. Indeed, at this very moment Johnny's mother may be trying out this identical formula by admonishing him to be more like Willie Jones.

Models have always been used to inspire conduct. Imitation, suggestion or identification with a person considered superior are ways in which a child progresses in his personality growth. These three mechanisms will be of the utmost importance in determining his character development, particularly in the more impressionable years. To the child, the most immediate superiors are his parents, and his earliest

impressions and attitudes will be influenced by the patterns of these two adults with whom he must of necessity have such intimate association. Later, other heroes will enter his life and alter his conduct. Parents themselves often aid in introducing other ideals for the child to emulate. Teaching the child about Lincoln's honesty and his return of a few pennies will avail little if the next day the mother comes home and revels in the fact that the grocery store clerk gave her change for a five instead of a one. Even the added remarks that the firm ought to hire a more efficient clerk or that it really owes the difference because of overcharging in the past will not outweigh the child's ideas in a similar position.

Moreover, the 7 year old child riding on a half-fare ticket may at first resent the implication of his continued babydom; yet when placated with an ice cream cone, he may come to marvel at the keen business sense of his parent as well as share in the feeling of well being that the latter presents over the successful outcome of the trip. So too will he learn from father's joking remarks about his padded expense account that there are methods other than Lincoln's to bring satisfaction.

A disorganized home routine will be just as effective an influence on the child as will a number of lectures and discussions of the organization, routine and industry of a Ford or Rockefeller. For out of the disorganization comes the satisfaction of escaping many responsibilities and unpleasant tasks. Father's rage and temper displayed over the telephone at the delay in delivery of his dress suit from the cleaners and the humble contrite tone and prompt attention that he then receives cannot help but be a tremendous influence on the young son. What good are his parents' remarks to be patient when the boy has seen what prompt dispatch a little impatience can bring.

More subtly the mother's anxiety and fear of failure will tend to foster a state of insecurity in the child, so that in his tasks and responsibilities there is a hesitation in their execution. This delay only further arouses the anxious state of the parent, so that discipline is frenzied and so is the child. Lessons in prompt obedience and quick action in a task will be colored somewhat from his other training.

Regardless then as to who the hero ideal is and the number of examples placed before the child, the parents as models probably come first in the direct influence on the child. The child does not need to be like Johnny Groves. Johnny Groves is another individual living in an entirely different environment with his own virtues and his own faults. Probably, too, the boys know more of the faults of Johnny Groves than their own parents do and may be secretly wishing that they could get away with as much as Johnny does.

In the long run it is preferable to let alone unfavorable comparisons as a means of influencing behavior, but if parents feel they must make use of a model to add to their own fine influence on the child, by all means let them select one far enough removed in antiquity or geography so that feet of clay are not likely to be easily discovered.

H. Armstrong Roberts

Johnny Groves may not be the type that appeals to boys.

INDEX FOR VOLUME

AN INDEX and title page for the 1931 volume of HYGEIA *is off the press and will be sent to any subscriber on request. Address The Editor,* HYGEIA, *535 North Dearborn Street, Chicago.*

How oft have you longed that your little one would
Outgrow not the charm of babyhood,
Keep the soft, round arms and the warm, moist kiss,
And the magic of April sinlessness.
—*Alfred Austin.*

SUGGESTIONS FOR VERY NEW MOTHERS

By

Joseph H. Marcus

Caring for the New-Born Child

INFANCY is an age of charm, and yet it is full of unpoetic reality. The new-born infant is an object of much concern to parents, physician and nurse. For a baby's life is full of both angels and hobgoblins. Mother Nature is on the side of the angels if given a chance, but if not, the office of the physician is to remove all impediments to natural development of the child, and all fears and dangers of the family.

The infant is by no means to be regarded as a small-sized adult, with reference to his general aspect or the construction of his organs. One can see at once that the head is relatively too large, the abdomen too big, the neck almost missing, the chest barrel-shaped and somewhat narrower than the head. In a child of 1 year, for instance, the distance from the lower edge of the chin to the top of the head is equal to one-fourth the length of the whole body. The abdomen is so full and prominent that it makes the chest appear rather contracted and narrow. As the youngster develops into the youth or maiden, gradual alterations occur.

The complete repose seen in the countenance of a normal sleeping child is shown also by the general posture. The head lies easy on the pillow, the body lies slightly inclined backward and the limbs assume graceful attitudes. The gentle rise and fall of the abdomen in respiration indicates normal breathing.

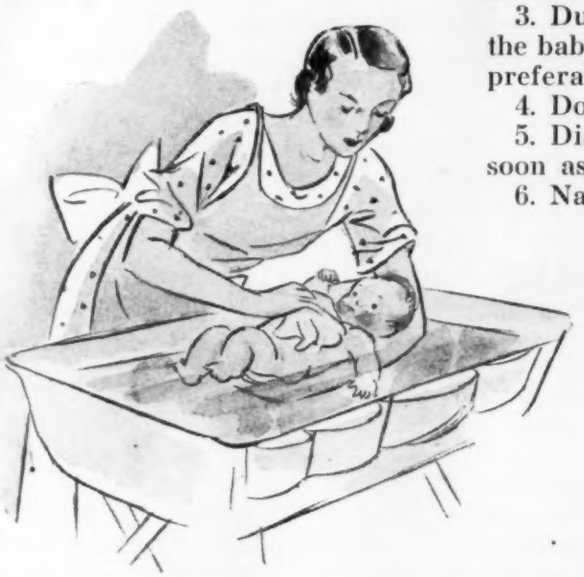
When awake the infant is rarely still. The arms at first move awkwardly but become full of purpose as the child handles and examines the objects about him. Later, the legs begin to move about with method, as he feels the ground in creeping and walking. Indeed the infant's manifold expressions, his method of getting acquainted with this complex world are full of delight to the observer.

Baby's bath should be given in a warm room, the temperature of which is between 75 and 80 F., or if this is not practical near a heater, preferably of the electric type. During the period in which the cord is separating, a tub bath should not be given. A moist cord should be reported to the doctor, who will give instructions regarding the changing of the dressing. After the cord drops off, a little boric acid powder or thymol iodide is applied daily to the raw area over which sterile gauze is kept until healing is complete. This occurs about the ninth day. The temperature of the water should be about 100 F. The soap should be nonirritating, such as castile soap or one of the numerous baby soaps manufactured by a reliable drug concern. If a thermometer is not available, the water should be tested by pouring some over the tender skin of the forearm.

If the face and scalp become irritated from the soap and water use oil only; this will not infrequently minimize the possibility of eczema.

Too vigorous cleansing of the ears and nose may cause abrasion of the delicate skin, and the procedure of wiping baby's mouth with a piece of gauze or cotton is a dangerous practice. The mucous membrane of a normal infant needs no cleansing, and injury to this tissue often results in infection and ulcerations. In my opinion a toothless mouth does not require cleaning. Breasts that are swollen or secreting should not be squeezed, but a firm binder should be applied.

In female infants the labia, or lips, of the genitals should be separated once a day and sponged with warm water to remove all secretions. In cleaning the girl baby after the bowels have moved, the sponging should be done from before backward to avoid introduction of fecal matter into the vagina. This direct contamination by the bowel movement may cause genito-urinary infection.



A tub bath after the ninth day.

Male infants require little attention to their genitals, except in cases of elongated prepuce (phimosis). When possible the foreskin should be drawn back and the area cleaned of accumulated secretions. Circumcision is the logical treatment. At times in healthy infants there appears a hydrocele (watery fluid in the scrotum); this requires no treatment as a rule, as it generally disappears.

Too frequently the mother leaves the hospital with practically no instructions for the care of her baby. Upon her arrival home she is immediately the recipient of all sorts of advice thrust on her by her friends and relatives. As a result she is completely bewildered as to proceeding, and consequently her infant will pay the penalty. By repeated talks prior to birth, the physician should educate the mother in such a way as to instil confidence in her.

Among the important rules of care outlined by Grulee, routine is the first essential for the baby. The carrying out of a well regulated existence is the only possible method of disciplining the infant. A few of his suggestions follow:

1. Feeding should be timed according to the schedule adopted. If the baby is asleep at feeding time, awaken him. If he awakes before feeding time, water may be given him.

2. Unsweetened sterile warm water may be given between feedings if it is desired by the infant.

3. During the early weeks, weigh the baby each day at the same time, preferably before bathing.

4. Do not wipe the baby's mouth.

5. Diapers should be changed as soon as they become soiled.

6. Nails should be cut with the scissors.

7. The baby is not a toy or plaything and should be exhibited and handled as little as possible.

8. Keep the infant quiet and free from commotion of all sorts.

9. The mother should avoid any display of nervousness near the infant.

10. Overbundling is absolutely prohibited. No infant should sweat in its coverings.

11. After feeding, place the infant on its right side, to aid in emptying the stomach.

12. A daily bowel movement is not essential. If the stools are not hard and if there is no discomfort, a bowel movement every other day is sufficient. Green stools in the breast-fed baby are of no consequence as long as the infant is getting an adequate amount of food and is thriving.

A nurse with a cold needs a mask.

13. Under no circumstances should a powerful laxative of any kind be given. Gluten or glycerin suppositories, or occasionally an enema, will prove sufficient.

14. Avoid overfeeding. Estimation of the quantity obtained at each breast during a day is valuable. This amount is obtained by weighing baby before and after each feeding.

15. Periodic medical advice is desirable, and before accepting nonprofessional advice consult a doctor.

16. Do not pick up baby every time he cries. The normal infant should cry some during the day to develop his lungs.

No attendant who has any kind of an infection should be allowed in the nursery. If her presence is absolutely necessary, she should protect the infected region as carefully as possible. In the case of colds a face mask should be worn or if the finger is infected a glove should cover the part.

Practical nurses possess their own ideals and standards of character, and it remains for each nurse to make her particular task with mother and child individual, and to infuse in her efforts something of her own personality. She will gain success according to how freely she puts herself into the task. Courage, versatility and ability, as well as professional skill, are necessary in order to create confidence in the mother and to lay the foundation for usefulness in the baby.

The baby's nurse should be subjected to a complete physical examination. Preferably of middle age, she should possess a genuine love for babies. She must be clean in body and mind, strong, capable, energetic, and free from conditions such as septic teeth or tonsils, nasal catarrh, or cough. The department of health of Havana has instituted a clinic for the examinations of nurse-maids and servants, who must present a certificate of good health when applying for a position.

The nurse needs to be intelligent, pleasant, and able to command discipline and respect. Her authority should be upheld by the mother. Never should she be allowed to whip the child or tell him ghost stories or other harrowing tales, for these may not only cause night terrors and disturb sleep but may instil in the child a timid attitude of mind that may endure.

Conscientious mothers will delight in the society of children and will understand them so well that the boy or girl can be managed with a minimum of friction. They will find in the companionship of their children a refreshment that they cannot get elsewhere. It pays mothers handsomely to spend a great deal of time with their children and to devote themselves to the study of modern methods of education, although even the most enthusiastic mother finds it a strain to be always with the children.

Bernard does not believe that a mother knows instinctively how to care for her child, and he points to the high rates of infant mortality in those districts and countries in which mothers have not had the benefit of training in infant care. Most modern mothers are eager to learn how to take care of their babies correctly. Many a mother has saved her child's life by devotion to its needs.

Observe Health Rules in Prevention of Colds

SINCE no one is immune from the common cold, the bulletin of the Milwaukee Health Department suggests several precautions to prevent colds. No one has the right to expose others to colds through mere carelessness. Through the cold, resistance to further complications is lowered. Fourteen points follow:

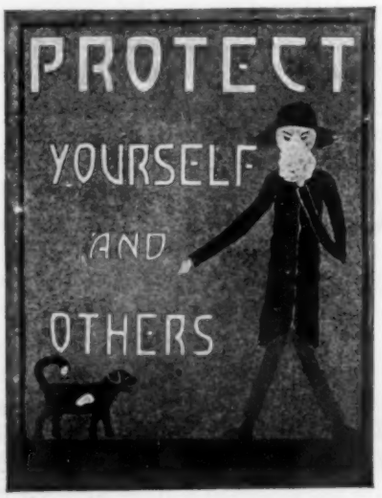
1. Cover each cough and sneeze with a handkerchief.

2. Keep the hands away from the mouth, wash them frequently and especially before eating and after handshaking.

3. Persons with colds should remain at home, away from the general public. No person with a cold should be permitted to handle food or eating utensils in the home or in restaurants.

4. Avoid as much as possible all persons suffering from symptoms of a cold. Persons having symptoms of a cold or influenza should be isolated from other members of the family as much as possible.

5. Wash, bake or cook all food that might have been handled by infected hands.



6. Use your own towel and drinking glass. Use only eating utensils that have been sterilized with boiling water.

7. Spitting is a dangerous habit at all times and especially during a cold. If practiced at all, it should be limited to cuspidors filled with a germicidal solution.

8. Avoid crowded and poorly ventilated places as much as possible.

9. Eat nourishing, easily digestible and laxative foods. Follow good eating habits.

10. Keep the poisonous waste substances of your system down to a minimum by getting from eight to ten hours sleep daily.

11. Get as much outdoor exercise as possible by walking to work.

12. Avoid both physical and mental fatigue as much as possible.

13. Don't worry about anything, because worry lowers one's resistance against infections and disease.

14. Have plenty of outside air in your home, both day and night.

By
W. Béran
Wolfe

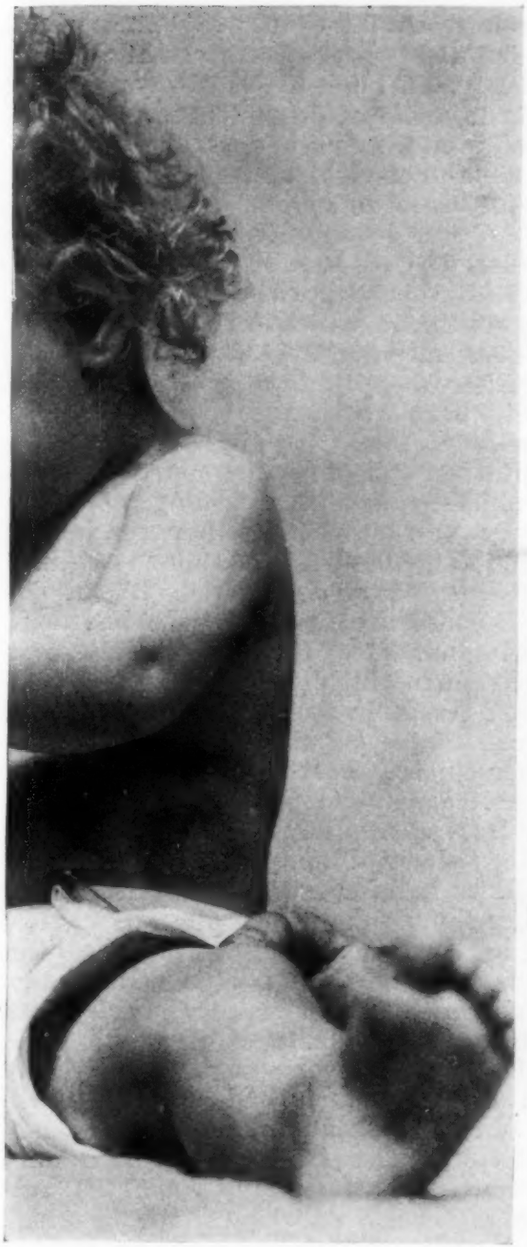
If the father is friendly, then the world will seem friendly.

MUCH has been written about the rôle of the mother in the family—her purpose and her influence in the life of the child —but psychologists have been conspicuously silent as to the rôle that the father plays in the economy of that little group in which every child learns his relationship to the world of men.

Man is a social animal, and the ability to make social contacts is learned in the family. When a person considers that every child grows up in an environment in which, by the very nature of his dependency and powerlessness, he must appear as an inferior being, he can readily understand how necessary it is to reconcile the infant to existence in this world. Undoubtedly a child's mother plays the most important rôle in this process of reconciliation. It is her duty to make his contacts easier. It is her privilege, by her attitude to the child, to win him to humanity, to dispel the feeling that he is a stranger in an enemy country.

In the usual family the evolution of the social feeling is first to the mother, then to the father, and finally to society. Most mothers succeed in fulfiling their first important function, to give the child the impression that there is one human being who is perfectly trustworthy and always friendly.

Now obviously it is not enough for a child to learn that only one other human being is perfectly trustworthy. The development must go on, so that he assumes a friendly fellowship with mankind in general. What is the next step? The next step probably lies in the development of a social relationship between the child and his father. As a child stands to his father, so will he probably stand to society; and it is necessary to consider how the father fulfils



H. Armstrong Roberts

The FATHER in the Family

WHAT SHOULD BE EXPECTED OF HIM IN CHILD TRAINING

his function, which is intimately connected with that of the mother. It is the function of the father to foster the work begun by the mother. Upon his shoulders rests the burden of enabling his child to make further contacts and to develop that independence of thought and action, that friendliness to the rest of mankind, which is indispensable to the development of a successful human being.

Many fathers fail to place the correct evaluation on the first function of the mother. Frequently a mother pets and coddles and loves her child too much. Fathers realize early in the growth of the child that this petting on the part of the mother is not the proper training for life in the community. Losing sight of the fact that reconciliation with life in an unfriendly environment is essential to the child, and seeing only the bad technic employed by the mother, the average father attempts to nullify the petting done by the mother by substituting for it a training in the stern realities. This is often the beginning of a real family problem. The mother pampers; the father, representing the matter-of-fact world, demands that his child conform to the independent, straight-forward standards of existence. The parents begin to argue as to the proper procedure and technic of education. The more the mother pampers, the more the father demands strictness and severity.

The father is right. The parasitic relationship between the petted child and his mother, a relationship similar to a vine and a trellis, is not the best preparation for life in the community at large. It is necessary to obey laws, and it is necessary to look facts in the face. But a child cannot be brought into a good relationship with society by being battered like a tennis ball between the softness of the mother and the severity of the father. This is bad education. Civilization, whatever one may think of it, is based on a virile ideal, a masculine ideal. Laws are made by men; ideals are ideals more fitting for men than for women; and the ideal of power, independence, completeness is more often associated with men than with women. This is a philosophical error, but one cannot close one's eyes to the fact that this error plays a great rôle in the development of most families.

Just as the mother has a double function, first, to win the child to one other human being, and second, to make him independent, so also the father has several functions. He stands as the representative of society. He comes in seldom, and therefore represents in some measure a courier from the enemy country. And besides, all the power and the might and the respect seems to be on his side. He carries the virile ideal on his shoulders, and so it is incumbent on the father to reconcile the child to the harmless-

ness and the good-will of those who are in power, those who are even bigger and seemingly stronger than his mother.

Then there is another function of the father that is related to the bisexuality of the human race. If the child, either male or female, has made an adjustment to the mother, the father must enable that child to make an adjustment to the other sex. In the last analysis, the father must complete the second function of the mother, because he must make it possible for the child to become independent. He must make the ideal of power and of bigness a lovable and a livable ideal.

Problem Parent Behind Problem Child

One can find variations in the function and rôle of the father on the mistaken side carrying with them just as many pathologic consequences as those of the mother. Sometimes mistakes on the part of the father are quite unwitting and are due to the inevitable facts of his own personality. There is the famous father, for instance, who often presents to the child the picture of an unattainable ideal. The social stratum in which the father finds himself determines his fame. By "famous" is not meant only those individuals whom all the world honors. In a small Main Street circle, a policeman or a locomotive engineer is a famous man. It matters not whether the father is actually famous or great, but solely whether his environment interprets him as a great figure. The burden of the father's greatness may rest heavily on the shoulders of his child.

Recently the papers reported the suicide of a young boy of weakly physique whose father, a policeman, had scolded him for his bad school reports. At the same time the son of a famous poet found life unbearable and committed suicide. In each case the father, a man of the world in the true sense, presented an ideal whose attainment was so remote as to be a factor of discouragement sufficient to drive a child to suicide.

The sons and daughters of famous men, particularly those of preachers, ministers or great politicians, sometimes actually turn out to be human wrecks, inadequate human beings. This is especially true of the oldest sons and daughters, who carry on their shoulders the weight of the family tradition to a greater degree than their younger siblings.

Consider the case of a girl who has become fixated on the father. By "fixated" is meant that the ivy-trellis relationship has become so marked that father and daughter are practically inseparable. In this instance the petting is done by the father instead of the mother. The rôle is reversed, but the processes are essentially the same. The result, however, is always a child growing up to a life of dependence.

Looking around, numerous examples can be noted of the father-child relationship that are fraught with error and grave consequences to the child. A case in point is that of a famous minister adored by his 16 year old daughter. At the age of 15 this girl was stricken with an almost fatal illness, which left her for three or four months an almost hopeless invalid. Because of her illness, this child was unable to keep up with her school work for many months. She is a brilliant, intelligent girl, but as a result of the gap in her schooling, she approaches her sixteenth birthday with a feeling of great despondency and crystallizes her sentiments toward life in an essay that she calls "The Autobiography of a Despondent Girl." She is despondent because she feels that she has done nothing with her life. Her mother is a very ambitious woman, highly intellectual but not well enough versed in the modern approach to the problems of the child's soul. In her desire to have her child as nearly perfect as possible she makes it a point to nag her, to scold her and to correct every little failing. Whenever the girl falls short of complete perfection her mother chides her for her faithlessness to the ideal of her famous father.

During her illness, at a time when the little girl was in great pain, she was allowed to smoke. The association between the pleasurable calm that she believed lay in the act of smoking and the relief from the agony of her little body remained after the illness had happily passed. But now smoking, once a God-given relief, is a subject of continual conversation at the family table. It has become a bone of contention and

H. Armstrong Roberts

To grow up to be just like father is the child's ideal.

the cause of family war. The mother objects to the little girl smoking not because it is injurious to her health but because it is derogatory to the position of her father, the prominent minister.

The girl's whole life is bound by artificial limits set by the peculiar position of her father. She may not make the social contacts that other girls of her age and of her set make simply because it might reflect upon her father's position. She may not spend more than a certain amount for clothes although the family is well off, because dressing well is not germane to the ideal of humility that her father preaches every Sunday morning. On the other hand, her mother gives her no adequate feminine ideal picture according to which she can orient herself and find a way out of the chaos of life. She sees in her mother only a highly intellectual, unsympathetic, criticizing, pedantic and more or less loveless human being.

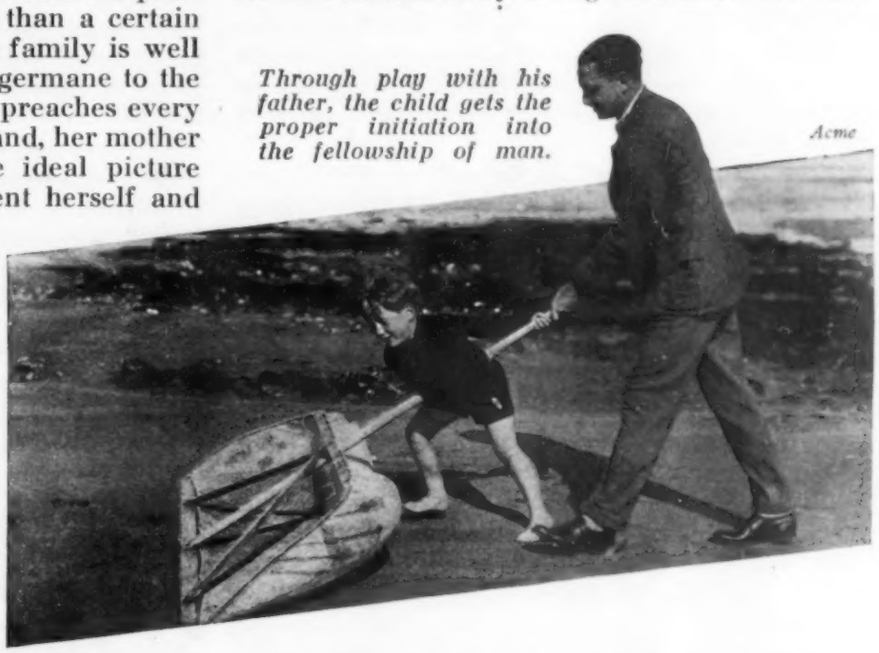
Now the relationship between this girl and her father is close. The child idolizes her father. He is a great man, but not too great; yet in the eyes of his child he stands, not only professionally but actually, close to God. The disparity between her ideal (her father) and her accomplishment is so great that there is little hope. The pressure from her mother discourages her from looking for a normal outlook in girlhood and womanhood.

The Too Superior Father

Strange to say, the actual facts do not bear out the little girl's interpretation of them. Although she is not quite 16, she has the accomplishments of a woman of 26. Even in her diary she writes with a style so forceful, so clear, marked with so much insight, that it sounds like the writing of a mature authoress. In this case we see a vicious circle. The father, although he loves his daughter inordinately has not made his ideal attainable enough. He has never sat down on the floor and cut out paper dolls with his child. He has petted her and loved her, it is true, but all his love has seemed like a special dispensation from God. The mother has failed in her function, because she, too, has not made the ideal of womanhood livable and lovable enough.

This little girl is a picture of perplexity and distrust that might have been entirely avoided if her father and mother had fulfilled their rôles and kept the ideal of humanity, rather than Godlikeness, within her reach.

Consider another case. The mother is an artist and a writer. The child is small, ugly and much perplexed as to his rôle in life. This boy has a sister who is one year younger. The sister is beautiful. Every one who sees her immediately comments on her unusual beauty. Artists come to the home to paint her. The boy is in despair. His rôle as the crown prince has been threatened and severely undermined. The father, a physician of a good reputation, is strict and moral. The boy is discouraged of ever being able to attain the greatness of his father. He is threatened by a high ideal on one side and undermined on the other by the beauty and physical attractiveness of the sister. He realizes that the family and the world expend more time and interest on her, and he begins to find a way out of the chaos in a useless way. He nags the sister, he beats her, he steals, he lies and he fabricates phantastic stories of meeting lions on the street or of having conversations with giants, all of which are the activities of a child who has been pushed to the wall, who sees no way out other than the way of fancy. The more the child lies and the more he beats and teases his little sister, the sharper is the punishment meted out to him by his well meaning but, from a pedagogic standpoint, unintelligent father. The more he is beaten, the more he is discouraged, the greater does his despair grow and the deeper becomes his hatred of the sister, the father and society.



Through play with his father, the child gets the proper initiation into the fellowship of man. *Acme*

The Henpecked Father

The case of an only son is another aspect of the same picture. Here it is the mother who is the dominant member of the family and the father who is a weak, vacillating individual. He loves his wife very much, is pleasant to her, but so far as exemplifying the male ideal he is sadly deficient. The mother henpecks her husband in the presence of the child, reproaches him with his inability to give an example to the child, makes fun of him in the child's presence

and that of company, runs the house with an iron grip, nags the child, does not allow him any measure of independence, dominates every act (his food, his dress, his companions), surrounds him with iron-bound rules and regulations. The boy grows up hating and fearing his mother but also seeing in his father a hopeless ideal. The restrictions of the mother narrow the circle of his activities to such an extent that he never ventures outside the family, and within the family itself the marriage relationship and that of the family appear in his eyes a sorry matter. He makes good progress in school, but the mother is always critical and never satisfied.

Unable to meet any of his school friends on an equal plane, finding in his mother only a threat and a danger, he builds up his life on the error that all women are like his mother, and that to be married, to grow up, is only to stand under the domination of some other woman. What has become of this boy? He is a homosexual.

The current opinion is that a homosexual is one who shows interest only in members of his own sex. This is a fallacy, because to be a homosexual requires a long period of training away from the normal heterosexual love relationships and away from the community ideal that a heterosexual relationship would tend to build up.

Homosexuals are not born; they are made abnormal. One of the surest ways to make a homosexual is to leave a child in doubt as to the validity of his own sexual rôle. In the example that has just been cited, the fault is due both to the father and to the mother. Two elements play their vicious rôles; on the one hand, the father's part is inadequate and the boy has no tangible model on which to base his striving for power; on the other hand, the picture of his mother is such a terrifying one that it acts as an effective obstacle in the development of any natural tenderness toward the opposite sex.

The "He-Man" Father

If homosexuality sprouts from this unfortunately prepared soil, do not wonder. Heterosexuality is made impossible. When the normal sex life is excluded, there is a place only for the dregs of sex—homosexuality and the perversions.

Examine another case, that of a girl. The father is a big, blustering "he-man." The mother is a pale, shrinking, timid creature. The mother is not well oriented in the world, unable to fight its problems. She uses her helplessness as a tool. She is constantly sick, constantly whining, begging for pity and extenuation. The father, also a neurotic but in a different way, makes sport of her, degrades all women. In his attempt to prevent the development of his daughter along the lines of her mother's evolution, this misguided father also effectually bars his daughter's growth to normal womanhood. He makes her ride horseback, play golf, go shooting with him, wear mannish clothes and forces a masculine ideal upon her. The girl is growing up with the idea that the only thing worth while in life is to be like her father, a "he-man."

Independence of thought and action, sportsmanship and the like are good activities for both sexes. But the emphasis may be so marked on these so-called masculine virtues that a girl loses all sight of the fact that her body and soul are directed to an entirely different goal than that of being a man. Here is a child whose womanhood is dwarfed simply by the artificial exclusion of all womanly activities. Here is a father who has some insight into the nature of his wife's neurosis, but whose technic of education is deplorably bad.

Imagine what will happen in this case when the girl is married to a man who demands companionship, a community of interests. If she marries, it will only be on the condition that she can dominate and play the rôle of a man in the home.

The seed of the neurosis was sown by a neurotic mother. It resulted in the distortion of her daughter's life. Should the daughter now have children, the poison will be inoculated into the third generation. Misguided eugenists speak glibly of the inheritance of nervous and mental traits, but we can see that it is purely a case of contagion. From a social point of view, neurosis is a contagious disease.

The Ideal Father

But what is the ideal relationship? It may be said at the outset that the ideal relationship is a marriage in which the children grow up in a family circle with the mother and father as friends and companions. In development to adequate manhood and womanhood there can be no place for strict respect of parents, no place for honor of parents, no place for gratitude. There can only be a place for those human feelings of kinship and honor and respect and gratitude due any human being who is one's companion, one's team mate. In other words, the ideal home life is that in which a sympathy in educational aims underlies the whole life. It is like an underground river which, although it is not seen, is always present. When there are aberrations of conduct and behavior, usually the children are right. They are making the proper orientation to a bad environment.

Therapy must be directed in the first place toward the parents. In the background of every problem child lurks the specter of a problem parent, or at least a pedagogic method of the parent the validity of which is highly problematical.

The Blood and Its Diseases — ANEMIA

By Robert A. Kilduffe

ANEMIA is not properly a disease of the blood but a state of the blood, a symptom that may be encountered under a great variety of conditions.

The term "anemia" is derived from the Greek, meaning without blood, and was coined probably to express the fact that in profound anemia the blood may have a thin and watery appearance.

Anemia signifies either a reduction in the amount of hemoglobin (the coloring matter of the blood) or a reduction in the number of red blood cells in a unit volume of blood, or both, as is usually the case.

In a general sense, anemia arises from a loss of blood, from destruction of blood, or from some imperfection in the manufacture of blood. While such a division serves as a satisfactory starting point for discussion, anemias cannot be so divided dogmatically because these three factors may be intermingled in a variety of ways.

The presence of an anemia may be recognized by the symptoms it produces, such as pallor or shortness of breath, an expression of the efforts of the body to compensate for the inefficiency of the blood as a carrier of oxygen to the tissues. These signs, however, are usually late evidences of anemia that may have existed for some time and the condition may advance to a marked degree before they become evident.

The diagnosis of anemia, and especially of those forms which are not due to large losses of blood, is usually made by examinations of the blood to determine its actual content of hemoglobin and the actual number of red blood cells per cubic millimeter. Moreover, a study of the characteristics of the red blood cells under the microscope not only furnishes definite evidence as to the degree of anemia but often furnishes a clue as to its type and cause.

Anemias resulting from blood loss, post-hemorrhagic anemias, follow the loss of large amounts of blood during a comparatively short time. As the loss of blood is usually obvious, as in hemorrhages as a result of injury or from the lung or other organs, recognition is simple and the resulting anemia can be foretold.

Occasionally, however, the hemorrhage may be concealed within the body and recognizable only by the symptoms produced. As these symptoms are in greater or lesser measure the same whether the amount of blood lost is large or smaller but long continued, they will be described in some detail.

The signs of a deficiency of the blood in either hemoglobin or red corpuscles arise from the functions of the blood. One of the important duties of the blood stream is to furnish fluid. Loss of blood means, therefore, a loss of fluid volume in the vessels as a result of which an inevitable train of events follows. To make up the fluid volume in the blood vessels, fluid is withdrawn from the tissues; these, thereupon, cry out for fluid, and the patient complains of thirst.

In order to keep the diminished volume circulating through the blood vessels, it is necessary for the pumping system to work faster, so the heart beats more rapidly and the pulse rate is increased. The pulse, though more rapid, will not be as firm as before.

To My Small Son, Under a Skull and Cross Bones

My lord, quite unintentionally I blundered
Upon these waters, in the treacherous dark;
And now my hapless vessel has been plundered,
And I am captive on a pirate bark!
I pray you, sheathe your cutlass, let me live
(And keep an eye upon your bloody crew!)
Isn't there any promise I can give?
Isn't there any service I can do?

Truly with vast disquietude I face
The confiscating of my only head!
Wouldn't you please consider, in my case,
A princely ransoming of gingerbread?
Must all my frantic prayers be wholly vain,
Brown-Eyed Avenger of the Nursery Main!

—Sara Henderson Hay.

To aid in the replacement of fluid in the circulatory system, the blood in the outlying capillary vessels is hastily withdrawn toward the central channels, and the skin becomes pale; being deprived of the function of the blood as a distributor of heat, it also becomes cold.

A marked symptom following the loss of large amounts of blood is shortness of breath, the mechanism of which arises from the function of red blood cells as conveyors of oxygen to the tissues and of carbon dioxide from them.

If, because of the sudden loss of large numbers of red blood cells, this transport system is suddenly or markedly impeded, the tissues suffer, as it were, from a partial suffocation. As the lost red blood cells cannot be instantaneously replaced some compensatory mechanism must be called upon. The obvious and most feasible means at hand is to increase the rapidity with which the absorption of oxygen and the discharge of carbon dioxide occurs; that is exactly what happens.

Breathing Is Affected

The rapidity of the circulation has already followed the loss of fluid and the blood is flowing more rapidly than normal not only through the general circulation but also through the pulmonary circulation. The red cells, therefore, are reaching the lungs sooner than usual and hence giving up their load of carbon dioxide faster than usual; but as they can only absorb the oxygen present in the lungs, it must be drawn into the lungs faster than usual, so the patient breathes more deeply and more rapidly, furnishing more oxygen and discharging more waste gases.

All these obvious and sometimes marked symptoms are noted by the physician when there has been a large and relatively sudden loss of blood; if the hemorrhage is concealed, they indicate to him that it has occurred.

While the same functions of the blood are involved, the same symptoms are not so obvious when the blood loss or destruction is of minor degree though continued over long periods, as is the case in those anemias dependent on blood destruction or inadequate blood formation.

While these two types of anemia may be separated in theory, in practice they are often inextricably mingled.

There are a few distinct forms of anemia the cause of which is the presence of some toxic agent producing blood destruction; these are the so-called hemolytic anemias, which are the result of lysis, or solution, of the red blood cells. Their end result is often a breakdown of the blood-making apparatus from fatigue as a result of the constant demands made upon it, so that the final picture is a combination of inadequate blood formation as well as blood loss.

Under normal conditions, as the life of the red blood cell is approximately one month, about one thirtieth of the total number of red blood cells must be replaced daily. For this demand the facilities of the blood-forming tissues are adequate. When more than this is required the mechanism must function at a high speed.

When the demand for new blood in more than the normal amounts is first made it is answered by an outpouring of red blood cells from a reserve tank, as it were, in the spleen and the bone marrow. This surplus is soon exhausted and, to keep pace with the continuing deficiency, the manufacture of red blood cells takes place with increased speed.

As the demand increases and the red cells must be turned out faster and faster, imperfections become evident. Not only are there hurried out into the circulation imperfectly formed cells, both smaller and larger than normal and containing less than the normal amount of hemoglobin, but also young and immature red cells, none of which are capable of carrying out their functions perfectly.

For a while, the demand may be more or less completely met. Eventually, however, the result of frenzied overproduction results in fatigue, in a wearing out of the machinery, and the product becomes more and more unsatisfactory while, at the same time, the total production becomes less and less.

While the fluid volume of the blood may be maintained within normal limits, the cellular content falls far below normal, reflected not only by the blood examinations but by the signs and symptoms resulting from the decreasing functional efficiency of the blood.

It is thus apparent how, regardless of the primary origin of the anemia, if it is long continued it eventually becomes complicated by disturbances in the formation of the blood.

Anemia may, as is obvious, be due to many causes and accompany many diseases just as it may have various characteristics one or more of which may predominate.

Iron Deficiency Causes Chloro-Anemia

A peculiar type of anemia encountered in young women, because of the peculiar pallor it produces, was known in olden times as "the green sickness." In it there is no reduction in the number of red cells, but none of them contain the normal quantity of hemoglobin. For this reason chlorosis, as this form of anemia is technically called, is a chloro-anemia; that is, an anemia in which the predominant feature is a lack of coloring matter. It is a condition arising from iron deficiency and is readily cured by the administration of iron.

The most striking anemia is that known as pernicious anemia, or Addison's anemia, the cause of which is still unknown. It has peculiar and striking symptoms, and only within the past few years has medical science discovered how to control it.

While the term "pernicious anemia" is open to many objections, it remains in use because it is time honored and is associated with a clear-cut picture.

The disease is associated with and frequently preceded for several years by a marked decrease or even an entire absence of acid in the gastric juice. Gradually and insidiously the patient becomes aware of being easily fatigued, of occasional dizziness and of loss of appetite.

One of the early and most striking symptoms is a peculiar numbness and tingling in the extremities. This is often the first sign which leads the patient to seek a doctor and which leads the doctor to suspect the presence of the disease. At this time there may be no pallor to suggest the presence of the anemia, but examination of the blood will show the disease to be already well advanced.

Blood Changes in Pernicious Anemia

As the disease progresses dyspeptic disturbances become more marked, culminating at times in sharp attacks of abdominal pain.

Sooner or later a peculiar soreness of the mouth appears; the tip and margins of the tongue take on a red, beefy appearance. A characteristic symptom is disturbance of sensation in the extremities, followed eventually by disturbances in gait (ataxia) and even paralysis, the result of localized degenerations in the spinal cord. Eventually the patient shows a marked and peculiar pallor, a sort of lemon yellow.

Examination of the blood shows striking abnormalities. The number of red blood cells progressively decreases and may reach the surprisingly low figure of less than 500,000 instead of the normal 4,500,000 to 5,000,000 per cubic millimeter. While the hemoglobin is also greatly reduced the reduction is not proportionate, as more coloring matter is present than would be expected.

When the red cells are examined under the microscope many will be found to be larger than normal; this explains the hemoglobin readings, as they contain a greater volume of coloring matter. Many more will be seen to be of bizarre shapes, while others are smaller than normal, so that practically no two cells will agree in appearance, shape or color, for the action of dyes on these red blood cells is erratic and presents many shades varying from the buff or terra cotta appearance of the normal stained erythrocyte. Many cells will be grayish blue and others will be covered with fine blue dots.

A characteristic feature of the blood studies is the irregular but periodic appearance of blood crises; that is, the sudden appearance in the circulating blood of showers, or large numbers, of young, nucleated, immature red blood cells.

Perhaps the most astonishing feature of the disease is the sudden, causeless, marked change that occurs; as a result of this the blood picture may return practically to normal and the symptoms markedly improve even to the point of practical disappearance.

These spontaneous remissions, as they are called, are deceiving, for sooner or later the disease once more begins its dreary, steady march toward an inevitable and fatal termination uninfluenced by any method of treatment.

Liver Diet for Pernicious Anemia

For a long time the mechanism of pernicious anemia was entirely unknown, although it was thought to depend entirely on a destruction of the blood by some unknown agent. Some few years ago, Whipple during the course of an experimental study of blood regeneration in dogs in which anemia had been produced noted the part played by the liver in the replenishment of the blood. As a result he suggested that the feeding of liver to anemic patients was worthy of trial. This suggestion was acted upon by Drs. Minot and Murphy, who tried it in pernicious anemia with dramatic results.

When liver was added in large amounts to the diet of patients with pernicious anemia, some of them almost at the end of the trail, despite the cessation of all other methods of treatment, the results were little short of startling.

Within an incredibly short time the blood picture returned to normal and the symptoms disappeared. Of course, nervous lesions consequent on actual destruction of nerve tissue in the spinal cord were not removed but their progression was stopped and their appearance prevented when they had not occurred.

It now became apparent that the essential feature of pernicious anemia was not blood destruction but an imperfection in the mechanism of blood formation and that this defect, apparently, was the consequence of a lack of some vital stimulator, some internal hormone or secretion that appeared to be supplied by the feeding of liver tissue.

To reestablish the normal state of the blood completely it was found that liver must be fed to the patient in fairly large amounts, not less than 120 Gm. per day. The source of the liver or whether it is cooked or raw is immaterial.

As the continuous ingestion of such large amounts presents some difficulty it is gratifying to know that extensive and persistent studies have shown that the active principle can be extracted from liver tissue and that this can be administered in much smaller quantities.

What this active substance in liver tissue is is not known, nor is the manner in which it restores the blood-making mechanism to its normal vigor understood.

Experiments have shown that while this substance is present in liver, it is also present and can be extracted from the tissues of the stomach

(Continued on page 84)

Give Thanks!

By Thurman B. Rice

AT THE medical meeting they had a public clinic,
And a pretty young woman in a party dress
Sat on a chair before a crowd of three hundred strange men
And had her esophagus dilated—poor kid! —
So that she could swallow.
Two businesslike doctors stuck do-funnies down her throat,
And pulled them out again, while she
Coughed and gagged and retched and sweat
And got red in the face
Before three hundred men—poor thing;
And I said to myself, "Old top,
You ought to be darned glad you can swallow
Without being dilated twice a week."

THEN today on the ward I saw a man gasping for breath,
Fighting, fighting for air to breathe.
Air! Air! Air! For air,
The symbol of freedom and abundance.
Face haggard and worn, eyes protruding, hands clutching!
Since a boy he had had these spells,
And no hope for the future, poor fellow!
And I said to myself, "My boy,
Thank God that you can breathe!"
It's a real privilege to be able to sleep o'nights,
To go to bed and forget until tomorrow,
And wake up ready for the new day.
It's great to be able to eat the food one likes and wants,
Without having the tummy ache.
It's wonderful to be able to go about one's business or pleasure,
Without pain, or apprehension or worry;
To be able to see;
To hear the voice of friends, and music;
To bask, in the evening, in the glow
Of a day's work well done.

THERE'S an old man—four score, he says—
Who's been blind for forty years,
And now has a cancer—and a worthless son,
A son that won't come fifty miles
To visit his poor old dad.
A dozen times a day he tells us about his son,
And occasionally mentions the cancer!
"Will my boys do that way?" Then, say I,
"Thank God for the cancer."
How great a thing it is to be young and well;
Or old, and happy, honored, loved!
How wonderful to have a job that thrills,
A future, a hope, a promise;
The assurance that comes of a fair sum
In trust against a rainy day.

CAME to the ward a woman, going blind,
And her husband did not know the cause,
Nor might be told.
One day she got a letter from her mother,
Saying that a certain person was very ill,
Rotting to death of an unmentionable disease—the "dirty thing."
She cried for a week—against our specific orders;
Bad for her eyes, you know—because,
Well, because, she had the same disease.
She had been indiscreet—loving too well!
But who has not?
And there came a box of fruit,
From the Ladies' Aid of the church,
Of the church where she belonged.
Bitter, choking fruit!
And I said, "Pray God, that when I
Shall take abed it may be with something that I can name,
And tell my friends about, and say in no small pride,
'Mine was the worst case the doctor ever saw,'
And so enjoy my martyrdom."

MY TALENTED friend and his charming wife
Have two small children;
Two slobbering, driveling idiots.
"If we had another, would it be like that?"
They beg of me.
But how do I know? I am not inspired to prophesy.
Two gibbering, ghastly lumps to love and care for!
Ah, God, I thank thee for these bairns of mine
Bright eyed, red cheeked, in body sound;
And as for wit—forsooth, it is not meet
That I should speak,
Except to give thanks and thanks and thanks.

Pioneers of Medicine

Walter Reed

By

Claude Lillingston

Great men, taken up in any way, are profitable company. We cannot look, however imperfectly, upon a great man, without gaining something by him.
—THOMAS CARLYLE.

WALTER REED, the sixth child of a Methodist minister, was born on Sept. 13, 1851, at Belroi, Gloucester County, Va. He was only 10 years old when the Civil War broke out, and he was involved in it, even to the extent of being caught by Sheridan's raiders, who found him with other boys hiding their parents' horses.

Reed Secures Sound Education

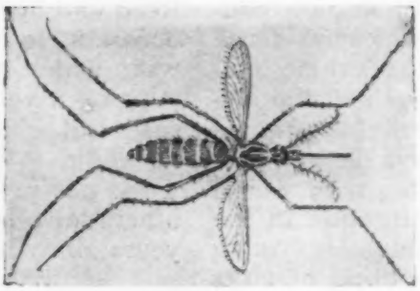
The family was not wealthy, but the parents secured for their children what at that time was considered a good education. Walter was 16 when he entered the University of Virginia, and he was graduated as an M.D. at the early age of 17. An M.D. at 17 would in our own times suggest a deplorably low standard of education, however precocious the student may have been. Standards were, indeed, much lower in 1868 than they are today, but there is no denying the fact that Walter Reed in his teens was already intellectually ripe.

Proceeding to Bellevue Medical College, New York, Reed again passed the necessary medical examinations and then held certain hospital appointments. In 1874 he entered the medical corps of the United States Army after a series of examinations which even in those days were no joke. He was commissioned in the following year with the rank of first lieutenant, and in 1876 he took up his duties in Arizona.

Nearly a score of years were spent in the wilds, sometimes many hundred miles from the nearest railway station, and with the most primitive equipment. Some may question the utility of such a training for a keen intellect like Reed's. But undoubtedly he learned much during these apparently barren years. Like thousands of other newly qualified doctors, he had left the secure surroundings of a well equipped hospital, in which the medical student and young doctor have only to ask a senior colleague whenever difficulties arise. In Arizona, Nebraska and Dakota, where Reed had to visit far distant homes on horseback, he had to think for himself.

Ultimately Reed realized that he had exhausted the benefits of the isolated life he had been leading for so long. Its drawbacks were becoming more and more obvious. Medical science was beginning to advance with giant strides. Instruments and technic were becoming more elaborate. New theories of far-reaching import were beginning to replace the teachings of his hospital days. The leaders of medical science were meeting more and more freely, sharpening their wits on one another. Under these circumstances it is little wonder that Reed felt the danger of stagnation in his old surroundings and wished to mix freely with his fellow scientists.

Side view, magnified, of the female yellow fever mosquito.



View of the female yellow fever mosquito.

Larva of the mosquito of yellow fever below the surface of the water. Highly magnified.

It was not till 1890, when Reed was already nearly 40 years old, that his career as a research worker began. Not that his horseback work between isolated homesteads in Arizona was unscientific, but, in Baltimore, he had the advantage of studying pathology and bacteriology under Professor Welch at Johns Hopkins University. The following decade witnessed an enormous output of laboratory work, the results of which he published in a series of papers, all bearing the stamp of his inquisitive but logical brain.

By 1898, Reed was already recognized as an outstanding figure in the medical world, and when the Spanish-American War brought in its train an epidemic of typhoid fever in the American Army, Reed was appointed chairman of a commission of inquiry. The bacillus of typhoid fever had been discovered by Eberth as early as 1880, but much had still to be learned about the mode of transmission of this disease. Reed and his fellow commissioners came to the conclusion that contaminated drinking water is not the sole source of infection, but that the bacillus can be conveyed by infected clothing and by the common house fly.

In 1900, Reed was sent at the head of a commission to Cuba to investigate acute infectious diseases, notably yellow fever. The sands were running out. He had not three years more to live. Yet it was in this last brief period of his life that his greatest work was achieved. Certain clues to the problem confronting him already existed. As early as 1881, Dr. Carlos J. Finlay, a Cuban of English ancestry, had not only identified yellow fever with mosquitoes, but had actually isolated the infecting mosquito from its innocent relatives. He had not, however, succeeded in supplying all the necessary links in the chain of his evidence.

Another clue was the discovery only three years earlier by the Englishman Ronald Ross of the parasite of malaria in a mosquito's body; the points of similarity between malaria and yellow fever were sufficiently conspicuous to set Reed thinking that the mosquito might be incriminated in connection with the latter disease. He had the good fortune to enjoy the confidence of Gen. Leonard Wood, military governor of Cuba, who gave him ready and generous help in the execution of the elaborate investigations he wished to undertake.

The story that follows is one of the most tragic and heroic in history. Experimental animals were needed, not so much the standard experimental rabbit of the laboratory as man himself. Volunteers were called for, and the call was answered fearlessly. The volunteers were soldiers of the American Army. The risks of disease and death were explained to them, and in some cases the money rewards offered were refused.

Dr. James Carroll, a member of Reed's commission, volunteered with ten other men to submit to being stung by mosquitoes that had already fed on patients suffering from yellow fever. Carroll and another of the volunteers developed yellow fever, but both recovered. The first experiments in August, 1900, were followed in September of that year by Dr. Jesse W. Lazear, who deliberately let an infected mosquito settle on the back of his hand and take its fill of blood. Five days later he developed yellow fever, of which he died. Camp Lazear, where these investigations were being carried out, was so called in honor of Dr. Lazear.

With these and similar controlled experiments, Reed was steadily piling up the evidence against the peccant mosquito, the Stegomyia fasciata, now known as Aedes aegypti. But he had still a long way to go. Was infected clothing, as in the case of typhoid fever, by itself capable of starting the disease in a new subject? Was infection air borne, independently of the mosquito? To solve these and other questions, Reed erected a small frame house, the interior of which was kept dark and warm and moist. The contaminated clothing and bedding of patients in various stages of yellow fever were put in this building, in which three volunteers undertook to live.

It needs some imagination to picture the workings of the minds of these three young men who were to spend the next twenty days and nights in what must to them have been the gruesome company of soiled clothing. They were healthy youngsters, who had never had

yellow fever and, therefore, did not enjoy the immunity that an attack of this disease confers. This meant that if, as was considered highly probable at the time, the soiled clothing was infectious, they would likely catch the disease and die of it after days and nights of acute suffering. The outlook cannot have seemed particularly cheery when these young men would awaken and take stock of the situation in the small hours of the night. Fortunately young men are not addicted to the counting of risks at any time, least of all at night.

The negative result of this experiment was yet another indication that the disease is spread by means other than inhalation of infected dust. But a negative experiment is likely to be less convincing than a positive one, and it was not till this experiment with soiled clothing had been repeated more than once that doubts as to the infectivity of soiled bedding and clothing began to approach certainty. The old Scottish legal verdict of "Not Proven" had to give place to the English verdict "Not Guilty." It would be idle to attempt to calculate the losses entailed by the wholesale destruction in the past of the belongings of yellow fever patients.

Reed's next experiment, again with human beings, was with a room to which no mosquito could obtain access without permission. Fine-meshed wire netting, dividing the room into two compartments, allowed the free passage of air but not of a mosquito. Four men who were susceptible to yellow fever because they had never had it slept in this room, two on either side of the netting, without falling ill. Having thus demonstrated that the room had not hitherto been infected, Reed set to work to infect it by letting loose on one side of the netting fifteen mosquitoes that had previously been allowed to sting patients with yellow fever.

Into this modern den of lions a volunteer, John J. Moran, entered, and four days after his first visit he developed yellow fever. During each of the visits he paid the mosquito-infested room, two other volunteers visited the other side of the room, shielded from the infected mosquitoes only by the wire netting. Though they spent eighteen nights in this room, they remained perfectly well.

The Net Tightens

With the net drawn, metaphorically speaking, more and more closely round the infected and infecting mosquito, Reed began to secure such a masterly control of the situation that it could be truthfully claimed of his famous camp that no one in it developed yellow fever except when Reed and his staff gave their permission! In one of their experiments they showed how blood drawn from a patient suffering from yellow fever in an early stage and injected under the skin of another person, not already immunized, could produce the disease in him.

It was, of course, a great disappointment to Reed and his colleagues that they failed on this occasion to demonstrate the micro-organism with which the mosquito infects itself when stinging a yellow fever patient early in the disease and which it proceeds to pass on, also by its sting, to a nonimmune person. But their work has proved a solid foundation on which others have been able to build during the thirty years since Reed was sent to Cuba.

Panama Canal Made Possible

The most tangible product of this work is, of course, the Panama Canal. Its realization by the French was prevented by yellow fever, and a logical consequence of the control of this disease by Reed and Gorgas was the final construction of the Panama Canal. Not only have there been many other campaigns similar to that conducted by Gorgas in the Panama zone that have stamped the disease out of one district after another, but numerous investigations have also added greatly to our knowledge of many pertinent circumstances surrounding this problem. It has, for example, recently been shown that in parts of West Africa the natives are still as saturated with yellow fever as they are with malaria, one out of every four children being immune to the disease (as proved by experiments on monkeys) because they have evidently contracted it but in such a mild form that it could not at the time be diagnosed by the clinical symptoms. It would seem that the children in such areas maintain the infection in the mosquitoes and thus keep the disease smoldering indefinitely. The European who enters such an area is liable to severe infection.

The assumption thirty years ago that yellow fever is transmitted only by the Aedes aegypti has been disproved, as experiments in West Africa and South America have shown that other mosquitoes may carry the disease. It has also been found that a mosquito remains infective all its life, and Professor Hindle has demonstrated that a mosquito may still be infective 118 days after feeding on a yellow fever patient. He has also shown that the disease is so highly infectious in its early stages that it may be conveyed to another person simply by his skin becoming contaminated with the blood of the patient. This highly infectious stage of the disease would seem to last only three or four days, owing to the rapid production of antibodies in the blood, even in fatal cases.

These and many other important discoveries are the more or less direct fruits of Reed's pioneer labors. He himself was not to enjoy them. In the fall of 1902 an attack of appendicitis led to an operation, and he died, a poor man, on November 22, in Washington. His tombstone in Arlington Cemetery bears the inscription: "He gave to man control over that fearful scourge yellow fever."

The Story of IGNATZ

By Kathryn Hecker

IGNATZ was a tiny and most peculiar Japanese, for his eyes were not slanting nor was his color yellow, and at times he was quarrelsome, which is contrary to the popular conception of what the disposition of a Japanese gentleman should be.

When I first saw Ignatz he bore the marks of recent conflict. Judging from his appearance, he had come off second best. His ears, which should have been perky and upright (I fear I must confess that Ignatz was a mouse) were ears that a respectable member of his clan would have been ashamed to own, for one was almost entirely gone. It had been chewed to bits by his rowdyish adversary to whom Queensbury rules meant nothing. The other one had two holes entirely through it. His tail was a sorry sight, nicked and chewed until it looked like nothing mousey. All in all he was a pathetic sight. He must have been conscious of his unprepossessing appearance, for he slunk in a corner of his box and hung his head in shame.

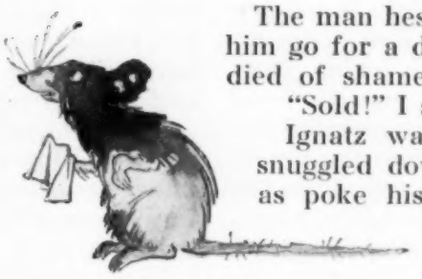
I had come into the store where Ignatz was to buy some food for my fish, when I saw him and his brothers and sisters. The latter were glossy and sleek, their pink eyes bright and shiny, and there was not a torn ear among them. I watched them for a while and they seemed to be having a lovely time, playing and waltzing. As I watched I wondered if a mouse or two wasn't just what we needed to give our apartment a homey air. Finally I asked the man in charge of the store how much they were.

"Five dollars a pair, lady," said he.

"Heavens, what expensive mice!" thought I. "I'm afraid the Heckers will have to forego the homey touch."

Just then I thought of Ignatz, for Ignatz Hecker he was destined to be.

"How much for this poor part of a mouse—this one with the dented tail and perforated ears?" I added, pointing to Ignatz, who hung his head still lower at this description.



He nearly died of shame. A dollar mouse, indeed!

The man hesitated and then said, "Oh, I'll let him go for a dollar." Poor Ignatz! He nearly died of shame; a dollar mouse, indeed!

"Sold!" I said, pocketing Ignatz.

Ignatz was new to pocket travel but he snuggled down inside, and did not as much as poke his nose out. All the way home there were two thoughts uppermost in my mind: One was a speculation as to what my husband would say when he met the addition to our family, and the other was a regret that I hadn't left the automobile behind and given Ignatz an opportunity on the street car to find out if women really were afraid of mice.

Arriving home, I put Iggie on the floor and he immediately began a tour of inspection and exploration, peeking under the chairs and the davenport and even under the icebox. As soon as he had satisfied his curiosity he began to waltz, going around and around until I was sure that if he hadn't had four legs he would certainly have tumbled over. When he tired of turning one way he would reverse and whirl in the opposite direction. By this time I had decided that he was quite a mouse, for in spite of ragged tail and ears, he did have personality.

Before I realized it the clock struck half past five and my husband arrived. Now for it.

"Hello, dear. I have the nicest surprise for you. I do hope you'll like it, for it's something we've really needed. You know an apartment just can't seem homelike with only a slippery goldfish for a pet."

This was as good an introduction as any, for I could see that Bob, after all this volubility, expected nothing less than a baby mongoose or a trained cobra. What a relief a mouse would be!

Ignatz must have sensed that it was time to make his appearance, for he hurried out from under a chair and much to my husband's astonishment the mouse began to waltz. Perhaps he thought that this was a crisis in his life, when he could either be accepted or be returned to his jeering brothers and sisters. At least he gave a masterly performance, and in spite of his torn ears and nibbled tail he was cute.

"What on earth is that thing?" asked the young man for whose benefit the performance was being given.

Detecting the interest in his tone, I replied casually, "Oh, a mouse. Isn't he sweet?"

"Sweet! What are you going to do with him?"

"Oh, you're going to build him a little house and I think I'll keep him on the window sill at night and during the day he can take his exercise about the apartment, and his meals in the dining room of his house."

The slang expression, "Oh, yeah," was all I heard as I went into the kitchenette to prepare dinner.

In about ten minutes I peeked into the living room and what should I see but Bob down on his knees talking and playing with Iggie. During dinner Ignatz was almost the sole topic of conversation, although I thought it more diplomatic to refrain from discussing him too much.

After the dishes were washed, I went into the living room and what should I see but my husband busily engaged in making a lovely house with a living room and dining room; in the center was a raised platform for Mr. Mouse to do his dancing on. Best of all, there was Ignatz perched nonchalantly on Bob's shoulder.

I chose to ignore these new developments, so I sat down to read. After an hour or so I was interrupted.

"Have we any petrolatum?"

"Why, yes, I think there is some in the medicine cabinet," I said, wondering why he wanted it.

My husband got the petrolatum and with it gently massaged Iggie's bitten tail.

The battle was won and Iggie was truly going to stay.

A week after Ignatz came to live with us, his tail and ears were healed. Of course he would never have more than half his right ear and his left ear did have a hole through it, but he was much improved. He seemed to feel better, too, for he waltzed more of the time and when he wasn't waltzing he was running. He was almost never quiet.

His appetite was tremendous. Often he consumed nearly a teaspoonful of bird seed in one day. He liked lettuce too but, strange as it may seem, he turned away from cheese with a disdainful air that seemed to prove he was no ordinary house mouse.

By this time my husband and I had begun to wonder what made a waltzing mouse waltz. In fact, we were so curious that I went to the library to find out. I began my search by looking through the subject index in the reference room. I found mouse and under it wood mouse, field mouse, white-footed mouse, jumping mouse, house mouse, white mouse and several others but not one word about a Japanese waltzing mouse.

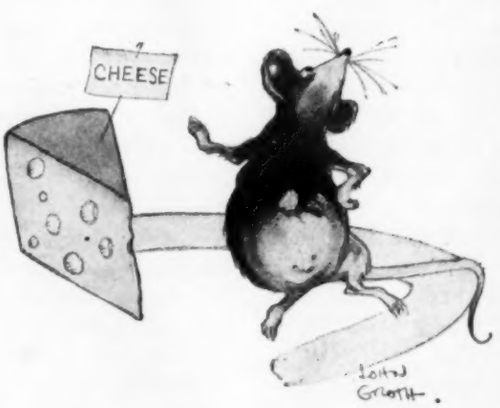
Finally I inquired at the office of the museum in the same building. There I was referred to a gentleman who had never even heard of my kind of mouse.

Together, we searched through huge volumes of books on natural science, in which we found everything from armadillos to zebras described, but not one word about Ignatz's family. After that we searched the "Reader's Guide." We looked through all of them, from 1915 on, and finally in the most recent one we found an article listed. After thanking the gentleman I hurried to the science room, got the magazine and read two pages about Iggie's family.

The information was meager, but it shattered all my illusions regarding Iggie's ability to understand what was being said in the pet store, for the author maintained that all Japanese waltzing mice are totally deaf!

Nevertheless they are a family of heroes, for in spite of their handicap, the U. S. Bureau of Mines is using them instead of canaries to detect the presence of gas in mines; many a brave mouse has given his life to save some human being.

After experimenting with numerous animals the waltzing mouse was chosen by the bureau. Because of its almost ceaseless activity its heart is very rapid, as is its respiration. Long before a person, therefore, can detect the presence of gas the mouse becomes sleepy and gives warning of the approaching danger. No reason for its waltzing seems to be known.



Ignatz turned away from cheese with a disdainful air.

Regardless of the mystery, Iggie proved to be a continual source of enjoyment and entertainment to his adopted parents, for in the weeks that followed he had convinced my husband that, in all the world, there was no more desirable pet than a mouse. Every Sunday Bob would spend half the day building a new house for him of the cardboard boxes I had collected during the week.

Iggie grew fat and sleek, but occasionally we noticed him gazing pensively from the door of his house. This worried me, and I tried to cheer him, sometimes with ant eggs purloined from Arabella Goldfish, and often with nice new straw for his house instead of the customary shredded newspaper. He would attempt to show his appreciation by waltzing several times on his platform, but he did it so half-heartedly

that no one would have been deceived. Ignatz was definitely unhappy.

It was my husband who finally solved the problem and made Iggie a happy mouse once more.

One evening I went into the living room, in search of Ignatz, who had been playing on the floor. I found him under the davenport and put him in his box, where his dinner awaited him. As I started to leave the room something white, hurrying out from under a chair, attracted my attention. I looked at it and saw that it was a mouse.

"How could that Ignatz get out of his box so soon?" I asked, thinking that Iggie must have jumped out.

"Dunno," Bob murmured disinterestedly.

I picked the supposed Iggie up hurriedly and just as I was about to drop him into the box I saw that it already contained a mouse.

Bob's face was hidden behind the newspaper and the paper was shaking suspiciously.

"You would turn this apartment into a mousery! Just because I brought one poor wounded mouse home, I'm doomed to be mamma to dozens. You make me tired. What shall we name it?"

After much discussion our choice narrowed down to Herbert, Katinka and Ambrose. After more deliberation we decided on Katinka, and hoped it was appropriate. It was.

Katinka bore a great resemblance to Ignatz except, of course, that she wasn't nibbled as he was, and she had a few more spots of black on her silky white coat. Iggy seemed to approve most heartily of this lovely lady mouse, and he was soon making friendly overtures in an effort to become acquainted. Katinka was a bit in doubt as to the propriety of accepting his advances, but finally she decided to be friends, and they began waltzing and running around their house together. From then on their romance developed rapidly.

Apparently Iggie's whole trouble had been loneliness, for with Katinka's coming he brightened instantly, and in a few days he was jolly once more.

The weeks passed and we spent a great deal of time watching our two mice and marvelling at the way they waltzed. It was not an uncommon thing for them to make as many as fifty revolutions in one direction without stopping for an instant. Incidentally, a Japanese waltzing mouse has been known to make as many as 400 revolutions before tiring.

Often when we went out we would put our pets in our pockets and take them with us for they could always be depended on to perform and they seemed to enjoy doing it immensely.

One morning, several months after Katinka had come to live with us, I went to their box to give them fresh water and food. Usually both Iggie and Katinka would come running out into their courtyard to greet me, but this morning only Iggie appeared. I was rather surprised at this so I lifted their house up to see where Katinka was. What should I see but Mrs. Iggie, almost buried in her shredded newspaper, with several babies cuddled about her. They were the funniest looking babies imaginable, not as large as the first joint of my little finger, without a bit of hair, and a bright pink in color.

I called my husband, and together we counted them, much to Katinka's consternation. There were three of them. Two and three are five, and estimating nine grandchildren, we should soon be conducting a mousery.

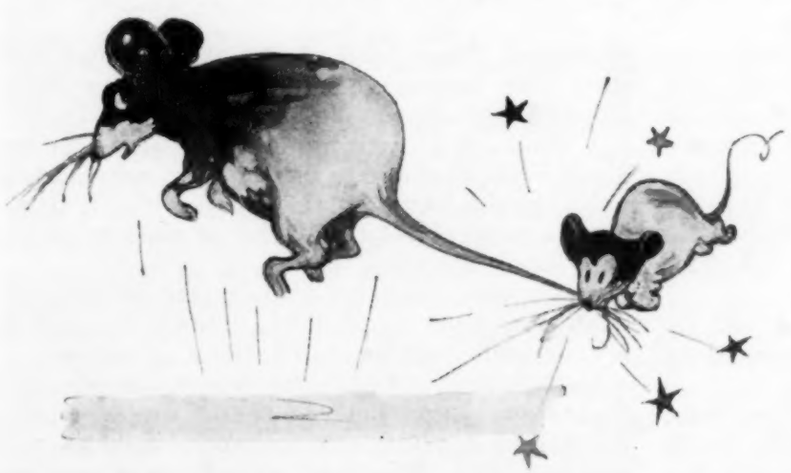
I knew that people often destroyed kittens, mice and puppies that they didn't want, but I could never allow this to be done. Why Iggie was already strutting about like the proverbial proud papa, and the affectionate way Katinka regarded her babies was enough to discourage any such ideas.

There was only one thing for us to do, and we did it. We built a larger house, bought another box of bird seed and started patiently to wait for the children to grow up.

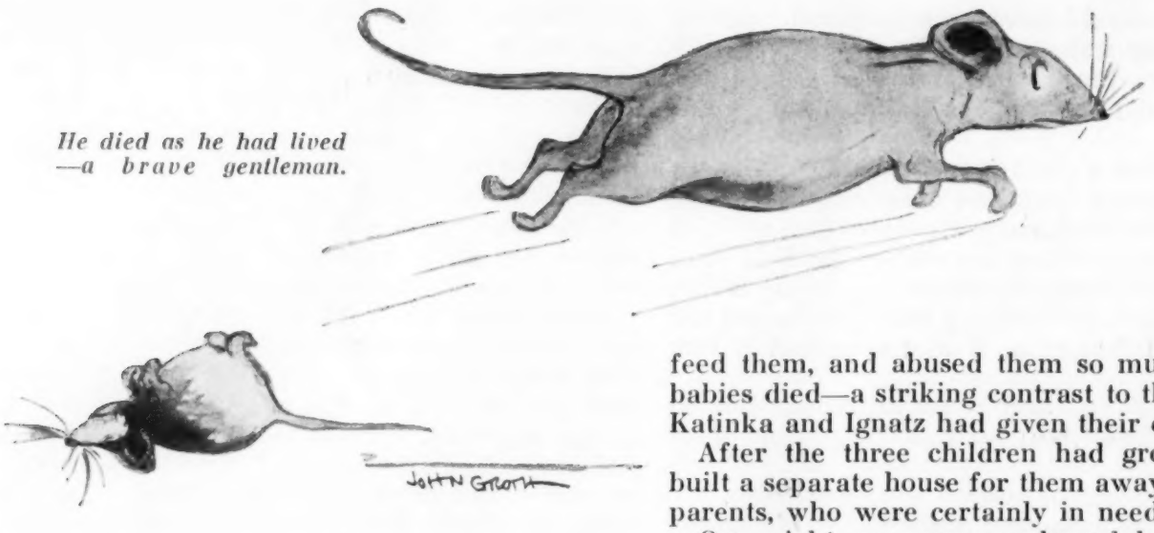
Unlike most Japanese waltzing mice Iggie and Katinka were ideal parents. Although they did not give up their dancing, they did not neglect their family. They were always at hand when one of their babies needed its face washed or wanted his dinner. Iggie, different from many fathers, was Katinka's efficient helper.

The babies grew rapidly and soon a white, downy fur appeared to cover their shiny pink bodies. Soon they were poking their noses into every corner of the house and exploring the depths of the cotton and shredded newspaper that was their nest.

Katinka, a wise mother, soon taught them to eat bread and lettuce and even the bird seed, the principal



One of the ill-behaved youngsters bit his father's tail.



He died as he had lived —a brave gentleman.

fare of grown-up mice. As the babies grew, they received a thorough training in all of the things that a cultured and well brought up mouse should know, such as washing their faces after dinner, dancing and refraining from biting their brother's and sister's tails.

As is often the case, this conscientious training was in vain, for these mouse children grew up to be the most ill tempered, quarrelsome, selfish mice that one could imagine. They did remember to wash their faces and they danced instinctively, but as for biting tails, it was terrible! Why, one or two of these ill-behaved youngsters even forgot himself to the extent of nibbling his father's tail on several occasions, and by the time the three rascals were two months old two of them were nearly tailless. They were truly bad mice.

Later, when Iggie's and Katinka's first grandchildren were born their cruel mother and father threw them out of the nest, refused to feed them, and abused them so much that the babies died—a striking contrast to the care that Katinka and Ignatz had given their children.

After the three children had grown up we built a separate house for them away from their parents, who were certainly in need of rest.

One night we were awakened by loud and piercing squeals from Iggie's box. I got out of bed, turned on the light and what should I see but a huge gray house mouse, about three times as large as Iggie, scurrying out from our pet's courtyard. Apparently Iggie had valiantly attempted to defend himself from this fierce marauder, for he had several bites and scratches on his face and tail. I examined him carefully and except for that, he seemed uninjured. Katinka was buried down deep in her nest, as far away from the big house mouse as she could get.

Thinking, of course, that Ignatz was all right I returned to bed, but in the morning when I went to feed him, I found evidence that the house mouse had returned; poor Ignatz was stretched out dead in his courtyard. Katinka was unharmed. In all probability Iggie had given his life defending her and himself from the attack of his ferocious enemy. He died as he had lived—a brave and chivalrous gentleman.

Death Rate for 1931 May Show Real Decline

THE year 1931 may record a lower death rate than ever before in the United States and Canada. Judging from statistics of the first nine months, it is highly probable. Regardless, however, of whether a new low point in the death rate is actually reached, the statistical bulletin of the Metropolitan Life Insurance Company maintains that in many respects, 1931 is the most remarkable of all years.

It is unusual that the death rate should be so low in a period of widespread unemployment and severe business depression.

A new minimum for tuberculosis has been reached. A decline of 7½ per cent in the death rate for this disease is foremost among the favorable developments. If this percentage is continued throughout the year, statistics will show the largest year-to-year decrease registered for this disease in ten years.

A drop of 3.9 per hundred thousand in the diphtheria death rate is another outstanding public health fact of 1931. The diphtheria death rate is now about two-fifths of that recorded only five years ago.

There has been no rise in the pneumonia death rate thus far in 1931. This is unusual in a year with high mortality from influenza.

Unfortunately there are numerous diseases that show important increases in mortality. They include: influenza, cancer, diabetes and poliomyelitis. The death rate from cancer has increased 6.4 per cent.

BOOKS AS A SOLACE FOR THE SICK

In hospitals for ex-service men, where the patients stay throughout convalescence, there is great demand for books on technical subjects.

By Isabel Du Bois

HOSPITAL libraries exist to provide aid in restoring hospital patients to normal health. The librarian of the public library hopes to encourage the love of books and the joy of reading, but in hospitals that is a by-product.

The only example I know of books being actually therapeutic occurred in one of our hospitals a few years ago when a patient who had had a broken arm appeared in the library and asked to borrow two volumes of the encyclopedia. It was a bit unusual, but the librarian gave permission. A few days later she needed the volumes, and when she visited the patient's room to inquire whether or not he had finished with them he said, "Oh, no, I'll need them for some time yet. You see I carry them in my brief case for weight to straighten my arm."

To aid the patient's recovery, the library contributes in various ways. One of the principal ones is to assist the sick man in his adjustment to an abnormal situation. Reading relieves the emotional tension practically always present in the ill. It provides both relaxation and stimulation, depending on the state of health and the material read. Use of a library enables the patient to forget his surroundings and his pain, arouses his interest in something outside himself, and provides wholesome recreation so that living seems worth while.

Fear of the unknown and of the consequences of the disease dominates the mind of the majority of patients. That the physician has not made a correct diagnosis or does not understand the trouble he is treating, or that the medicine will not act as it should are general fears of the patient. To counteract such fear by giving the mind other thoughts, the library renders first aid.

Present-day therapy includes many methods not formerly considered. Doctors are no longer content with a prescription of drugs or perhaps surgery, but add rest, exercise, massage, electricity or any of the various methods of physical therapy now in use, as well as a study of the personality of the individual patient with the resultant psychic treatment.

Librarians with their specialized knowledge of books are often needed to provide the treatment that has been called bibliotherapy. To do this the librarian must study the individual patient. She must know his mental background, his present mental state as affected both by his disease and his physical surroundings, the length of stay at the hospital, and the doctor's opinion as to what is most needed to assist in the treatment—relaxation or stimulation. In general, the patient with a chronic disorder is likely to be depressed, especially if this is not his first stay in a hospital; he needs something to arouse

new interests. The day before an operation any patient is likely to be nervous; he needs quieting and outside interests. After the operation he may have an optimistic view of himself as well as the world at large; then he needs restraint and something to provide excitement to still his own. At the wheel chair stage he feels he is a well man craving action and not books. Typhoid convalescents are often lazy-minded and need stimulation. The person with heart disease needs soothing relaxation. Each disease and each patient produce a mental state that the librarian must consider.

In a discussion of the building up of a book collection necessary to give the hospital librarian the tools for this service, the families and friends of sick and convalescent persons receiving medical treatment in the home may get some suggestions of value. A well rounded, general collection to provide for all interests and tastes is needed in the hospital. In the service hospitals with which I am most familiar and in which the men stay through their convalescence more technical material is required than in the average hospital library.

Literary Excellence Not the Sole Guide

First, how should fiction be selected and wherein do the standards of selection differ from those of the average public library? Veritable trash from a literary standpoint, which the public library may not consider a justifiable expenditure of funds, may be the book need for the man or woman who has read little and has no standards to guide his selection.

First of all, standards of literary excellence are discarded. Only the subject matter, the manner in which it is presented, the thoughts it will arouse, or the way in which the patient will react are considered. Nothing that will provide unwholesome trends of thought is wanted. This is not a question of morals or prudery; it is only a question of the mental reaction of the patient. Much current fiction is not wholesome for the sick.

Realistic fiction material and psychological studies with depressing effects cannot be recommended for this use. Virginia Woolf's "To a Lighthouse" is excellent literature, but because of the introspection is barred from the hospital library. Richardson's "Ultima Thule" is another book too depressing. Rolvaag's "Pure Gold," a powerful story of the ruthless degradation of both body and soul from the love of gold that began only as thrifty saving, could almost produce melancholy in the well. Bojer's "Everlasting Struggle," a story of poverty and desperation, even though it gives the contrasting beauty both of the country and of love, is too stark for any one not in a normal mental condition to read. It is well to remember that a sick body means a sick mind even though one may be unconscious of it.

A friend of mine, a librarian, discovered this. The day after my friend's operation, I visited her and knowing that she was a regular reader of the *Atlantic Monthly,* and thinking that she would enjoy it when she was able to sit up, I took the current number. Her young nephew of 16, following his own taste, brought her the latest copy of *Adventure.* Her first day up she reached for the *Atlantic Monthly* with the usual pleasurable anticipation. After reading a page or two she came to the realization that she had not the faintest idea of what she had read; she began again with no better luck. Thinking it was a complicated article, she put it aside and tried *Adventure.* This she read with ease and completely forgot herself and her surroundings, although she never read it before or since. Later she returned to the *Atlantic* and discovered that the article that gave her so much trouble was perfectly simple. It does not, therefore, necessarily follow that the choice in health is the choice in illness.

So the fiction shelves of the hospital library must be filled with adventure stories and love stories, sometimes of the most inane and sentimental variety. The latter provides, as one of our hospital librarians has found, for such persons as the 80 year old Civil War veteran who wanted a love story "where they git each other" adding that he did not like to read the ones "where they did not git each other." Adventure stories include the western stories of Grey, Mulford and Seltzer. These provide the action that frequently is demanded in direct relation to the inactivity of the patient. Military men ordinarily lead active lives and when they are forced to inactivity by a stay in the hospital, they seem to need more than ever the western story, the thrilling sea yarn or the tale of adventure. McFee's "Pilgrims of Adversity" is an excellent hospital book for the man in this position. The action is swift, the story easy to follow, and the characters interesting. I can think of no unfavorable aspect of this book except the print, which is not as large as it might be. It is, however, clear and legible.

Detective Stories Must Be Dispensed Judiciously

Detective stories are both useful and dangerous. They provide interest, stimulation as well as relaxation, and they are useful unless they include morbid and unwholesome details. This is one of the times when the librarian must use discretion based on her knowledge of human nature. The detective story that may be wholesome for one person may be disastrous for another, and the same may be true of the same patient at different times. One should avoid all stories with unwholesome or gruesome details such as of poisonings or suicides; too much of the supernatural or morbid introspection as to motives is dangerous. After taking care to exclude the unsuitable, discretion must

be used in recommending any detective story. Biggers is one author who can be depended upon for a mystery story without objectional features. His characters are well drawn. Charlie Chan is an entertaining person. Biggers' plots are always plausible and the interest is sustained. "Black Camel" and "Charlie Chan Carries On" are two of his worthy of inclusion in a library for the sick. Cohen's "Back Stage Mystery" is another recent book without gruesome details.

Of the older detective stories "Dracula" is an outstanding example of what to avoid. It is a tale of pure horror and its recent revival as a movie has presented a problem for many hospital librarians because friends will bring the book to patients as a gift.

Always Demand for the Classics

The fiction shelves must also be provided with the old standbys such as Dickens and Thackeray for as a patient once said, "The nights are long, but Dickens is longer" and his were the only books certain to last out a sleepless night. This reminds me of a recent experience of one of our hospital librarians. This question was put to her by a nervous patient. "Oh, Miss Jackson, what is insomnia?" Only he called it insomonia with the accent on the second O! "I just can't find it in the dictionary and the doctor says it's what I've got. It keeps me awake nights trying to find out what it is." The new Harper large type edition of Dickens is particularly good for hospitals because of the attractive make-up.

The surgical patient needs something requiring no mental effort; therefore short stories or humorous stories that do not require sustained interest are frequently of the most use.

Pearson's "Queer Books" is an excellent one to be picked up at an odd moment. It is full of the idiosyncrasies in books of other days and provides thoughts to be dwelt on after the immediate moment of reading.

Mrs. Becker's "Golden Tales of the Old South" is a splendid collection for use in this particular. Robert Benchley, Stephen Leacock, Will Rogers, Ring Lardner and other American humorists fill a great need, for while the individual sense of humor differs, so do these authors. I am glad there are still some who enjoy the "Autocrat of the Breakfast Table" with its quiet humor, and Lamb's "Essays."

Christopher Morley's "John Mistletoe" is one of the best for easy reading. It can be read

The librarian visiting the wards with her book cart brings to the hospital patient the one normal activity in an otherwise abnormal world.

briefly, put down and taken up again, but the print is not good. The volume is full of food for thought and bright entertainment.

In the selection of nonfiction, travel and biography come first to mind, perhaps because patients can be more easily led from fiction to travel or biography. For the chronic patient who has become tired of fiction, either opens up new lines of interest. The fiction reader can occasionally be beguiled by such as "Contemporary American Novelists" or "Men Who Make Our Novels" as they are an easy step from the books they have been reading. In this age when new biography fills such a large space on all library shelves, it is not difficult to provide interesting books of this description, although one must be wary of the psychological type that delves too deeply into mental reactions.

Deutsch's "Incredible Yanqui" is the authentic career of an American soldier of fortune, sharing in many revolutions sometimes on the winning side and sometimes not. There have been several books of this type recently, such as Batson's "Vagabond's Paradise," a book that may require discretion. James' "Lone Cowboy" is excellent for the man who wants only western fiction. "Lafitte the Pirate" is almost as unreal as fiction. Dumas' "The Incredible Marquis" will either satisfy the readers of Dumas with another romance or introduce Dumas to the lovers of romance.

Emily Dickinson has said, "There is no frigate like a book to take us lands away." While she did not refer to travel books only, they come first to mind. For those confined to their hospital beds, vicarious enjoyment of travel is one of the normal pleasures left. In selecting books on travel, unfortunately one of the major considerations must be the physical make-up of the book. Often books of this class are so large and heavy as not to be suited to hospital use.

Roy Chapman Andrews' "Ends of the Earth," is an excellent hospital book. It is both biography and travel. It supplies adventure in a running account of the author's experiences almost all over the earth. It is well illustrated, has good print and is light enough for the average patient's use. Practically all of Mr. Andrews' books can be recommended for hospital use.

Akeley's "Adventures in the African Jungle" consists of informal reminiscences of unusual and humorous incidents that occurred on safari. It is attractively illustrated and easy to handle. "The Road to Grey Pamir" by Anna Louise Strong, the story of a horseback trip to the Central Asian Plateau, is delightful reading. For those who liked Halliburton's adventures, there is Ketchum's "Follow the Sun." "I Married a Ranger" is a cheerful description of the life of a ranger and his wife in the Grand Canyon. Dobie's "Coronado's Children" is an outstanding book beautifully made and delightful reading, to me more interesting than "Doubloons."

Books on animals and nature life have a most useful place in the hospital book collection but not all persons find them interesting and the librarian must discover the patients to whom they are suited before recommending them. Slosson's books on popular science such as "Science Remaking the World" are excellent to start some readers away from fiction. "The Outline of Science" and "Masters of Science" are others that fill the same purpose. One patient in a moment of confidence divulged the fact that he had once been an animal tender in a circus and it appeared he knew a great deal about animals, especially spiders and snakes. On her next visit to his ward, the librarian brought him a beautifully illustrated volume on reptiles from the nature library. With shining eyes, he said, "Did you pick this out for me? I'll say you're some picker." From then on it was easy. He read Beebe and Carl Akeley's stories and had a grand time.

"Bambi" by Salten is one of the best of hospital books. Its simplicity and charm make it appeal to almost every one.

Zane Grey's books on fishing are heavy but if they can be handled are frequently a new avenue to the Zane Grey fans who only know him as a writer of western stories.

A book on the book list of last spring "Jungles Preferred" by Janet Miller is one of the most delightful books I have read. It is good for the sick and well. It provides sufficient thrills for the most blasé, but no gruesome details. Her keen sense of humor prevents the discouraging, depressing aspects of her life in the equatorial jungles of Central Africa from coming to the foreground, and she presents a vivid picture of the jungle, its plant and animal life. It is an example of courage in facing almost overwhelming odds that will prove beneficial to the reader. I read this immediately following Seabrook's "Jungle Ways," a perfect example of a book unsuited for hospital use.

The baseball season opens an avenue of approach to the books of Christy Mathewson or Babe Ruth's biography, books that have inspired many a man to read a book who never read before.

The use of poetry depends on the person and on the librarian. It is particularly useful in the heart wards in which something serene and peaceful is needed. After soothing poetry, the patient often slips off to a deep, beneficial sleep. Refreshment of the spirit is closely related to comfort and relaxation of the body.

The interests of patients are as wide as the world itself and each person requires the fulfilment of his own needs. Much has been said in library circles about fitting the book to the reader. I know of no better place for this than in the hospital. Moreover there is no place in which an intimate knowledge of books is as necessary as in the hospital.

Building a Diet

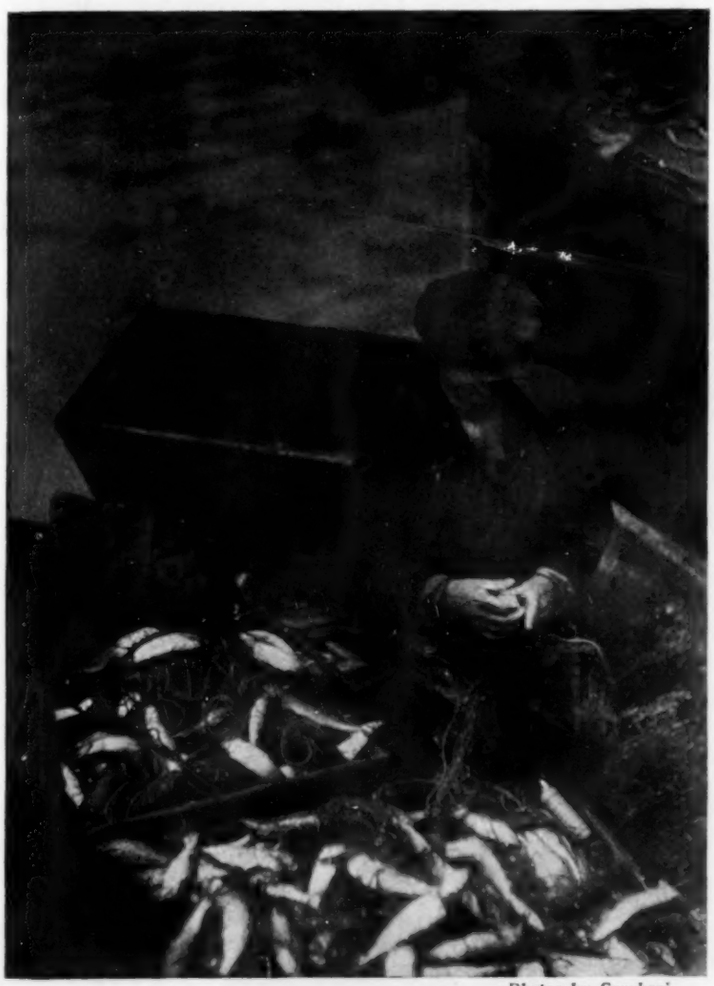
By

Solomon Strouse

Once a much maligned fruit; now approved by nutritionists.

IN RECENT years entirely too much propaganda has been prepared about certain nutrition theories, which have caused unnecessary and even foolish adherence to temporary food fads. Unless the theory is proved by actual fact in the experience of mankind it need not be regarded too highly. It is safe to say that sane eating without overindulgence will be a pretty safe basis for a healthy life.

The nutritional needs of an individual are dependent in part on well established physiologic facts and in part on conditions outside of the body, such as the kind of food most available in the community. Heredity and tradition likewise play an important rôle in nutritional requirements.



Photos by Scacheri

Meat, fish and fowl are the best sources of the essential protein.

The need of a body for food is dependent on what the body is doing. The rapidly growing child cannot be compared to the fully developed adult. The child is a dynamic, growing organism; the adult is more or less static. An individual of a certain build, height, weight, age and occupation is in general similar to any other person with the same qualifications. Long experience and careful physiologic research have established the fact that such a person in the course of a day will expend a fairly definite amount of energy. Mere existence, which includes the act of breathing, the beating of the heart, the movements of the eyelids—activities most of which go on even during sleep—consumes energy. All interchanges of energy in the body are grouped under the general name of metabolism, and the energy of mere existence is called basal metabolism.

Every other activity of the body, however, whether it is walking, talking, eating, playing golf or mining coal, increases the amount of energy consumed by the body. The function of food is clearly and definitely to furnish energy to the human machine so that it will not burn itself up in the course of its daily work. In addition, food also repairs the waste of tissue

that is taking place during the process of metabolism.

Since the function of food is to furnish energy and repair loss of tissue, it is apparent that all foods must have a capacity to perform one or both of these functions. The main food elements are grouped under several big headings: protein, fat, carbohydrate, water, mineral salts and the so-called accessory food factors, vitamins. Usually food as it is eaten is composed of a mixture of these main food elements, frequently with one predominating. A study of food analyses will show, for instance, that beef or the meat of any animal, including fish and poultry, consists mainly of protein with a varying amount of fat. Protein is the one element of food that contains nitrogen and for that reason is the only food that can replace tissue lost in the body. Many other foods contain small amounts of protein but not in the proportions available in animal matter.

Where Carbohydrates Are Found

The carbohydrates are the starch or sugar parts of food; they are indispensable for rapid use as fuel. They are found in fruits, vegetables, cereals, milk. Ordinary sugar is the most concentrated type of carbohydrate available. Sugar is found in pure form in fruits and to a lesser extent in some of the vegetables. Starch is a higher combination of sugars and furnishes the main ingredient of the various cereals. Bread contains a large amount of starch.

The fats are what their name implies: fat of meat, olive oil, butter and the fat portion of cream or milk. Fat furnishes fuel and can be stored in the body.

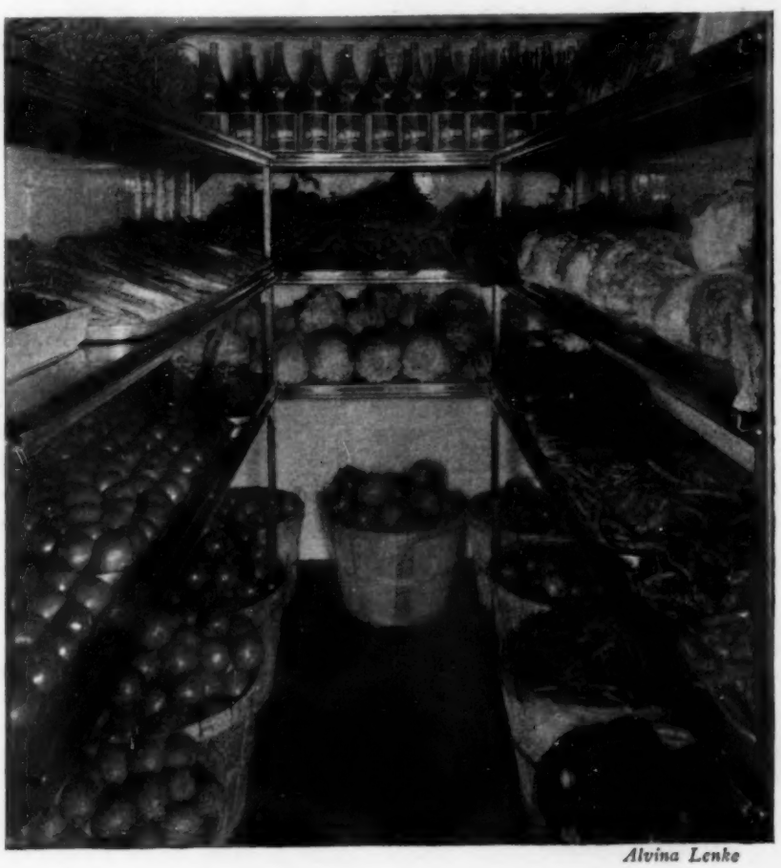
The essential nature of water as a food element needs no discussion, nor can much be said about the importance of the various mineral salts. Table salt has always been a necessity of human life, but most foods contain many other kinds of mineral salts, such as iodine, calcium and phosphorus. There is much to be learned about the salt metabolism of the body; almost daily new information is being obtained on the importance of a proper ratio of salts in the diet.

The "little" food factors are occupying the greatest attention today. Before the days of the discovery of vitamins it was known that certain illnesses, such as scurvy, could be cured by the addition to the diet of certain specific foods, such as fresh milk, fruits or vegetables. There is perhaps no greater tribute to the scientific approach to dietetics than the amazing mass of laboratory work that has been accumulated to demonstrate the relation of vitamins to certain diseases.

Where to Find the Vitamins

Vitamin A is essential to growth and it is abundant in milk, butter, eggs, cod liver oil and in smaller amounts in beef fat. Vitamin B also is concerned with growth, and this is the particular one whose absence produces polyneuritis. Vitamin B is abundant in egg yolk and milk, in some green vegetables, in the heart, liver and kidney but not in the meat of most animals. It is present in the whole cereal grain but is lost to a large extent in the milling process. Vitamin C is the vitamin the absence of which produces scurvy, as well as other degrees of ill health. It is found particularly in the juices of fresh fruit. Vitamin D is present in cod liver oil, and probably is connected with the prevention of rickets. The most recent vitamin discovered is vitamin E, which has to do with the reproductive function of the body.

In selecting the diet attention must be paid to the qualitative ingredients described. The quantitative side of the diet is discussed on the



Alvina Lenke

A glance into the appetizing refrigeration room of a Ford plant.

Photos by Ewing Galloway

A correct diet must be a combination of experience and experiment.

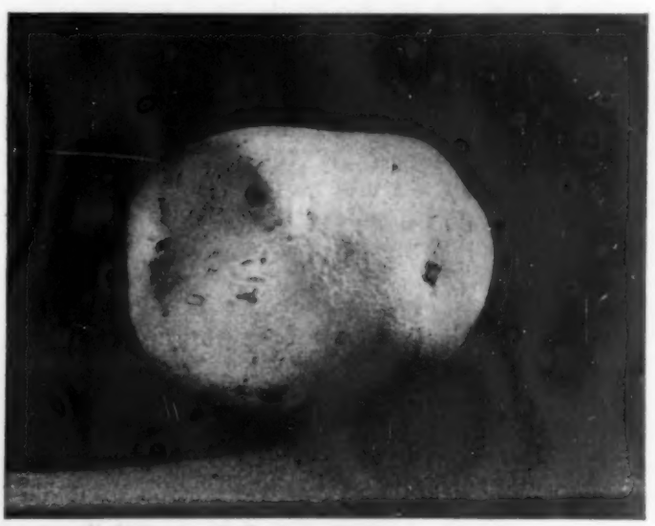
basis of the fuel value of food. A calory is simply a unit of heat value. Coal is bought in many large establishments, not by the ton but by the number of units of heat a ton will yield; the same is true with food. All food, therefore, has a definite caloric value which, in round numbers, is figured as follows: every gram of protein and carbohydrate yields four calories, and every gram of fat yields nine. Water, minerals and vitamins have no food value as fuel; therefore they have no caloric value.

In the construction of a diet, many other factors of lesser importance must be considered besides the person's size, age and occupation. There can be no standardization of diet to the point at which all individuals or any group can logically be fed in identically the same way. Even if it is proved by experience that a coal miner requires 4,000 calories, the actual distribution of this total food depends to a large extent on the available sources of the food supply. Communities consume the product of the community. When foods rich in fat are found, those persons eat more fat than those in a community in which fat is scarce. On the other hand, fresh fruits and vegetables will be consumed in a temperate or torrid zone since these foods are found there in greater amount than they are in northern climates. Racial habits also are of importance. The food values of spaghetti and bread are nearly alike, but certain of the Latin peoples prefer spaghetti to bread.

Food to be consumed must be prepared to suit the taste of the consumer; likewise it must be prepared in such a way as to be digestible and properly handled and absorbed by the body. Preparation and handling of food is, however, so much a matter of personal taste, or at least of community habits, as to make any standard entirely superfluous. Another factor in dietetics that has received an undue amount of attention is the question of roughage. In America, at least, the fad for coarse and rough food has followed the dogmatic statements of advertisers rather than the precepts of scientific knowledge. Generally speaking, roughage takes care of itself whenever a proper supply of food is available in the community.

From what has been said so far it must be evident that there are only a few fundamental principles necessary for proper dieting. Despite the peculiar faddist tendencies of modern life and despite the valiant propaganda of advertisers and theorists, it still remains true that man is evolving into a pretty healthy animal whose span of life is gradually increasing without too much aid from so-called scientific dietetics. It is interesting to speculate on how man managed to reach the present state of civilization. His existence has been unquestionably the supreme experiment on the trial and error method ever undertaken.

It is safe to say that the continuance of a healthy life implies proper feeding and that in the presence of an adequate food supply, any animal, including man, will choose the foods best suited to his needs. The experience of the human race is, after all, rather immense and cannot be completely offset by a few hundred laboratory experiments. The conclusions drawn from the experimental method are of stupendous scientific and practical value, but one must beware of drawing too many and too hasty conclusions. If one considers the tremendous and rather revolutionary changes in ideas concerning the feeding of infants in the last ten years alone, one must realize the necessity of controlling all dietetics by prolonged experience. To give a child tomatoes and bananas or to mix orange juice and milk at the same time was only a few years ago a terrible insult to the infant's stomach. Now it is a common practice.



In the United States we eat a large amount of carbohydrate.

A correct diet must be a combination of experience and experiment. Consciously or unconsciously, attention must be paid to the proper amount of protein, mineral salts, vitamins and fuel. In building a diet it is just as well to start with the fuel requirements. This can be done in one of two ways, either by the mass method of study or by the individual. The mass method is a simple one of finding out by actual figuring of food intake just what 1,000 soldiers or 10,000 school teachers are eating and calculating the average from the total. This actually, of course, merely shows how much they are taking, and if it is known that they are living in health it is probably safe to assume that the figures are proper.

Plenty of statistics are available from all countries and from almost all groups of people to give a basis for the fuel value of the average diet for any given group. For instance, it has been demonstrated that tailors use approximately 2,700 calories daily, whereas woodsawyers may use from 5,000 to 6,000 calories a day. A seamstress working by hand will use approximately 2,000 calories and a washerwoman from 2,900 to 3,700. Farmers in various countries have been estimated to use approximately 5,000 calories, whereas lumbermen in Maine use 8,000. These figures, of course, are dependent almost entirely on the nature of the work. The more work, the more energy consumed and the more fuel needed to supply the energy.

The Fuel Needs of an Individual

The other method of determining fuel value is by the study of the individual needs. This can be done simply nowadays. The actual energy expense, that called basal metabolism, can be determined by a simple breathing test. The effects of exercise, labor and eating are known. Expressed in terms of percentage increase over the basal metabolism, it is a matter of extreme simplicity to find out just how much fuel any individual of a given age, height, weight, doing a given amount of work requires to maintain his efficiency.

Fuel value established, it is now necessary to distribute the proper amount of food elements. Regarding protein there has been so much discussion as to the amount necessary that the only conclusion that can be drawn is about as follows: The body needs a minimum of from 1 to 1.5 Gm. of protein to the kilogram of body weight. Any amount below that, if continued for any length of time, is likely to produce evidence of disease. How much higher the protein intake can be without producing harm is still a speculative matter. Arctic explorers have lived on a tremendously high protein intake without any apparent damage. On the other hand, it is probably true that some persons eating protein to excess do suffer certain physical ailments as a result. There is considerable discussion as to the importance of the source of the protein. In general it is believed that a mixture of the proteins from meat, dairy products and vegetables forms an optimum protein requirement.

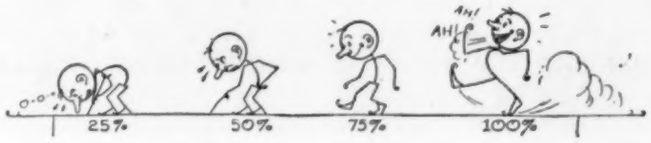
Although considerable care is necessary to see that the body receives a sufficient supply of protein, not as much attention is necessary in the distribution of the carbohydrate and fat. Carbohydrate and fat have an equally important value as a supply of fuel, roughly in the relation that one part of fat will supply twice as much fuel as the same amount of carbohydrate. The relative amounts depend essentially on the source of supply. In the United States we eat a large amount of carbohydrate, anywhere between 300 and 400 Gm. a day. That is because carbohydrate foods are cheap and easily available. In Alaska fuel is supplied mainly by fat. In the United States we use fat mainly to supply calories not furnished by protein and carbohydrates.

Although we do not pay a great deal of conscious attention to the mineral metabolism and to the need for vitamins, it is a fairly safe statement to make that milk, fresh fruits, fresh vegetables, bread and butter, some meat and an egg or two will pretty well cover most of the fundamental nutritional requirements of salts and vitamins.

Growing Child's Needs Differ Slightly

The growing child adds the problem of continual change as one of the principles of feeding, but otherwise differs in no way from the adult. Naturally growth calls for certain elements that are not required in adult life to as large an extent, such as protein, calcium and iron.

The relation of diet to disease forms a chapter in itself. It may be mentioned, however, that there are diseases in which the body is not able to utilize certain foods. Diabetes, a disease in which the sugars and starches are not utilized in a normal way, and scurvy in which the lack of vitamin C causes a real disease are examples. There are also probably states of ill health indefinitely associated with certain dietary errors. However, generally speaking, the most important dietetic factors producing ill health may be summed up as follows: (1) insufficient nutrition, (2) overnutrition, and (3) unbalanced diet.



Scacheri

Acme

Women in the News

Acme

Underwood and Underwood

MRS. MARJORIE HUTTON (above), an American living in Paris, was voted the world's youngest-looking grandmother in a contest conducted by a Paris newspaper. SIGNORINA TERESA TERRONI (extreme left), famous Italian swimmer, on a recent seven-day holiday saved five persons from drowning. MME. MARIE CURIE (left), co-discoverer of radium, recently demonstrated at the Congress of World Physicists how rays can be produced from an atom. The statue MOTHERHOOD stands in front of the Daily News Open Air Sanitarium for Children in Lincoln Park, Chicago.

Protecting the Family's Food Supply

By DORIS W. McCRAY

A GLIMPSE through the microscope reveals all sorts of things we didn't suspect could get into our food—tiny plant life, such as yeasts and molds, sending their roots down into the food and depending on warmth and moisture for growth; and also those insidious little fellows—bacteria.

The seeds and spores are blown about in the air we breathe. The dish towel, the "dustless" duster and the kitchen apron may carry them. When they finally rest on moist food, they start their growth, and after several hours we pronounce the food spoiled, tainted or molded and consign it to the kitchen waste can, for we never knowingly take a chance with questionable food.

Tasty Foods May Be Tainted

Ah, there's the difficulty! A series of experiments at Columbia University showed that food can be tainted before its odor and appearance proclaim that fact. Veal soup with bacterial count so high that it was entirely unfit for human consumption was pronounced palatable by experienced and inexperienced tasters!

Fresh high quality milk having 4,295 bacteria per cubic centimeter, which is low enough to be safe, shows an increase to 4,566 in forty-eight hours, if held at a temperature of 40 F. The same milk shows 127,727 bacteria at the end of forty-eight hours when held at 50 F.; while if held at 60 F. the bacteria increase to 35,011,111 in the same length of time. These figures were obtained using samples of the same milk, storage temperature being the only varying factor.

Similar multiplication of bacteria occurs in moist foods having high nitrogen content, as meats, gelatin, peas, beans. Cooking will not make good meat out of spoiled meat. If it is tainted, it should be discarded.

Mold develops quickly or slowly, depending on temperature and moisture. When it develops slowly it may remain invisible to the naked eye as long as thirty-six hours.

The simple experiment of exposing saucers of freshly boiled veal jelly to the open air or having a soiled dish towel shaken above them to introduce different organisms, allowing them to grow at different temperatures for a few days, shows forcibly the necessity of refrigeration in arresting food spoilage. Under favorable conditions bacteria can double in number every twenty or thirty minutes.

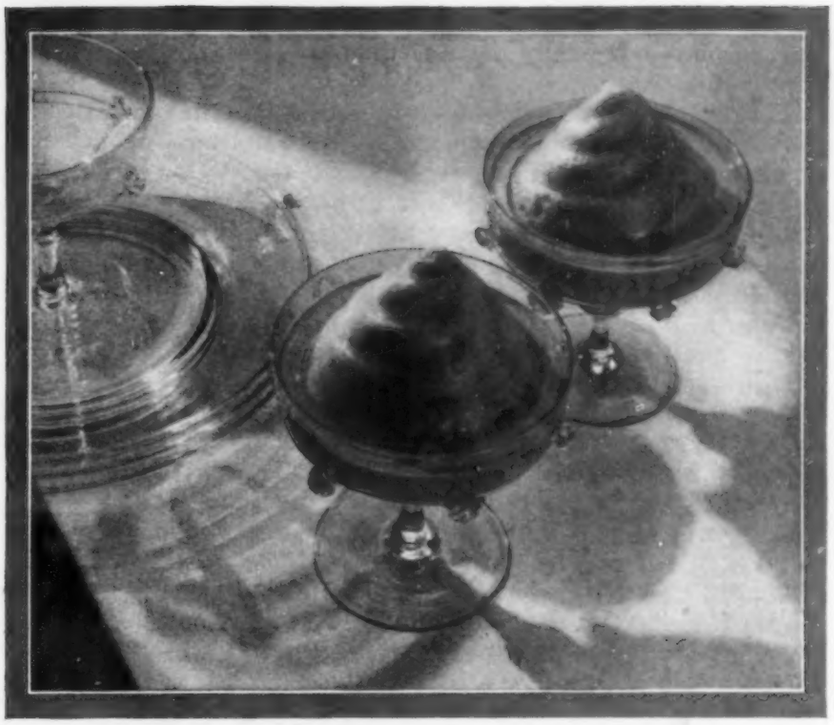
Freezing Damages Food Flavors

The majority of us in this country have somewhere near the average of nineteen days out of the year during which we can safely keep food outdoors on the porch or in some spot safe from our own or the neighbor's cat. This leaves an average of 346 days during which we cannot get along without the ice man unless, perchance, we have one of those thoroughly modern and magical contrivances that makes its own ice cubes, freezes desserts, and keeps all of the food within its doors adequately refrigerated. By adequate refrigeration is meant, of course, that the food is not going to freeze, for the damage freezing does to food flavors is well known.

On the other hand, adequate refrigeration means that the food is kept so cold that the bacteria will not rapidly multiply, making the food unfit to eat. There are two ways of outwitting these bacteria. One is to seal the food in tin or glass and kill them by heat. Our huge canning factories do this for us. But once the can is opened, it is again subject to decomposition caused by bacteria.

The other method of routing these dangerous, unseen foes is to keep them at a sufficiently low temperature that they multiply slowly. This is done, for a limited time, by maintaining the food below 50 degrees, which has commonly come to be regarded as the danger point for all perishable foods.

As a matter of fact, milk, cream and butter should be kept colder —at 42 F., the temperature maintained evenly by the automatic refrigerator in the compartment used for these foods. Fresh meats require this temperature, while cooked meats, gravies, sauces, creamed vegetables, various croquettes, jellied meats and entrees partially cooked and ready for a final manipulation need a temperature of from 43 to 48 F.



Gelatin dessert is more palatable served cold.

Olive oil, mayonnaise and various salad ingredients are stored at a temperature slightly less cold than the group just mentioned, as are also less perishable foods such as cheese, strawberries and sliced pineapple.

Endive, celery curls, head or leaf lettuce, parsley and various greens required for salads in many refrigerators have a compartment all their own, which not only affords the correct temperature but also the correct amount of moisture and air circulation to revive them if wilted and to prolong their life.

Some vegetables and fruits require space on the top shelves of the refrigerator. Others may be placed in a ventilated vegetable bin, or, in case the refrigerator compressor is situated in the basement of the home, the compressor section of the box may be converted into a vegetable bin for cabbages, carrots, salsify and beets.

Those vegetables and fruits that repose in the refrigerator itself are sufficiently cooled for serving. Take oranges, for instance. One has merely to take from the box several of these, golden ripe, and extract the juice to serve at once without additional chilling.

A crisp, cold salad consisting of sliced orange and cucumber on a bed of lettuce.

The peel of the orange has a delicious odor, yet this odor detracts from the palatibility of our butter. Hence oranges and other odorous foods are best stored on the top shelf. The air as it rises through the box becomes warmer, and finally passes back into the ice chamber where the ice or the refrigerating unit purifies and deodorizes it, allowing it to fall, cold and fresh, on the butter and cream in the food chamber below.

Once every two weeks the temperature control of the artificial refrigerator is turned to the defrosting position, thus shutting off the current. The coils warm up sufficiently to allow the heavy coating of frost to run off into the pan below. The next morning the refrigerator is turned on again and the compressor operates continuously for a period. The well insulated cabinet will hold a tem-

perature well below 50 F. on the food shelves during the defrosting period, thus preventing food spoilage.

There has been tremendous improvement in these machines recently, especially in the matter of quietness of operation.

The desire for refrigeration is as old as Nero, who had slaves bring snow from the mountains to cool his wines. Alexander the Great had trenches dug for storing snow. Hundreds of kegs of wine were cooled there.

The ancient Egyptians perhaps were among the first who knew the secret of cooling by evaporation, as practiced by the native of India today. Shallow trays of porous material are filled with water and placed on beds of straw; there they are left exposed to the night winds, and by morning a thin film of ice has formed on the surface. The Chaldeans did the same thing. Tablets have been dug up illustrating slaves fanning porous jars filled with water, in order to bring about quick evaporation and lowered temperature.

Hindus Produced Artificial Ice

The Hindus for ages have produced frost artificially by making slight excavations in the ground in a high plain and filling these with dry cane stalks, which are poor conductors of heat. Over these they place at sunset shallow, unglazed pans filled with cool boiled water. At sunrise the thin coating of ice is collected in baskets and carried to the ice house.

Among primitive peoples some method of food preservation was essential to avoid famine. Perishable foods were put into an artificially constructed cave or into a box over a cool spring or in the bed of a running stream.

Marco Polo, the great Italian explorer, is reported to have brought recipes for water and milk ices from Japan and China in the thirteenth century. When Catherine d'Medici left Florence to go to France in the sixteenth century, she took with her the best of the chefs to make frozen creams and ices for her every-day consumption.

In the seventeenth century, the French government made an unsuccessful attempt at government ownership when it licensed the business of farming ice and snow. The farmers raised prices and people refused to buy; after the government relinquished its control of this commodity, the law of supply and demand brought the business back to normal.

There is a well known painting of an early fishmonger in England selling ice from his wagon, a practice that is still continued.

The first record of American delivery of ice to the home is in 1802, and the first commercial shipment was sent in 1805 to Martinique to help stay the ravages of yellow fever.

During the period from 1858 until 1890 developments were made in the manufacture of ice, and in the latter year took place the greatest shortage in the crop of natural ice that ever occurred in the United States, giving impetus to rapid development of mechanical refrigeration.

While mechanical refrigerators were at first designed for use solely in large cold-storage plants, the advantages of this machinery to packing houses, commission houses, restaurants and hotels became so apparent that it was the natural next step to develop machines for providing refrigeration in the home. The economy of adequate refrigeration at once apparent to any dealer handling large quantities of perishables likewise becomes apparent to the householder who handles the food supply for the family.

The first household refrigerating plants were fashioned after those large ones in commercial use. Since then a vast amount of research has been carried on with the household refrigerator, and we are now able to choose from the many makes on the market, a number that are highly satisfactory in appearance and operation.

Of the various types available, one may still select an ice refrigerator, if ice is procurable, in which case the ice chamber should be kept more than half filled all the time so that the food compartment will be held at a satisfactory refrigerating temperature, below 50 F. Or one may choose a refrigerator that plugs into the wall or floor socket, if the house is wired for electricity. Electric refrigerators have now proved themselves worthy of their popularity over a period of years.

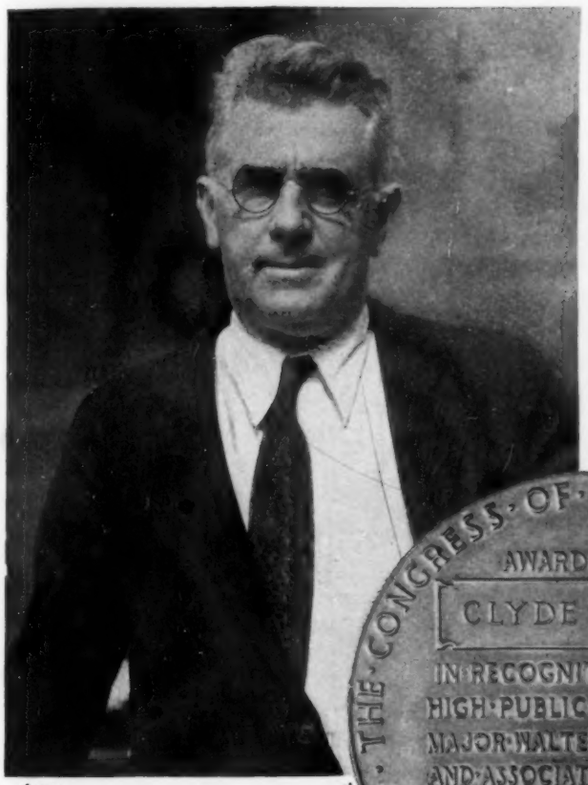
A refrigerator which is not mechanical but which is of the absorption type uses a tiny gas flame to furnish the energy required and is connected to the house water supply. It uses manufactured, natural or compressed gas, as does the gas range.

One Refrigerator Uses Kerosene

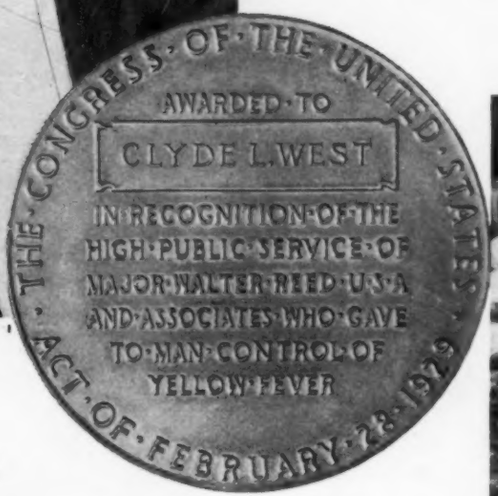
The same principle of operation is employed by the kerosene refrigerator, the flame being lit each day, after which it extinguishes itself.

Another absorption type refrigerator has a removable refrigerating unit which is placed on the stove each day, while a tub of water at the side of the stove cools the ball at the opposite end, after which it is again placed in the box, to give adequate refrigeration for twenty-four hours, including the usual freezing of desserts and ice cubes.

The household refrigerator is necessary in order that foods that have been carefully handled in accordance with health ordinances until they are sold shall receive proper home care, their purity and freshness being maintained until they are served to the family.



Acme


THE · CONGRESS · OF · THE · UNITED · STATES
AWARDED · TO
CLYDE L. WEST
IN · RECOGNITION · OF · THE
HIGH · PUBLIC · SERVICE · OF
MAJOR · WALTER · REED · U.S.A
AND · ASSOCIATES · WHO · GAVE
TO · MAN · CONTROL · OF
YELLOW · FEVER
ACT · OF · FEBRUARY · 25 · 1929

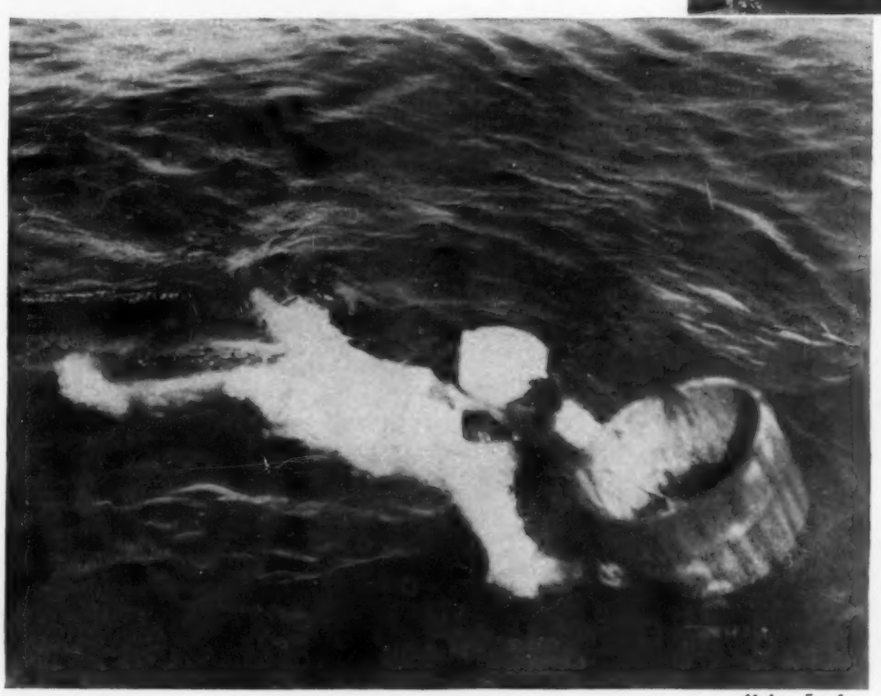
YELLOW FEVER AWARD

Clyde L. West, who received one of the recently struck congressional gold medals awarded heroes of yellow fever experiments in Cuba 31 years ago. The experiments of Walter Reed are touched on elsewhere in this issue.

WORLD'S LARGEST CABBAGE

In the vitamin alphabet, cabbage stands for A, B and C. But when a cabbage weighs 22 pounds and measures 7 feet in diameter, as this one from Berlin does, it's just a world-beater for health.

Underwood and Underwood

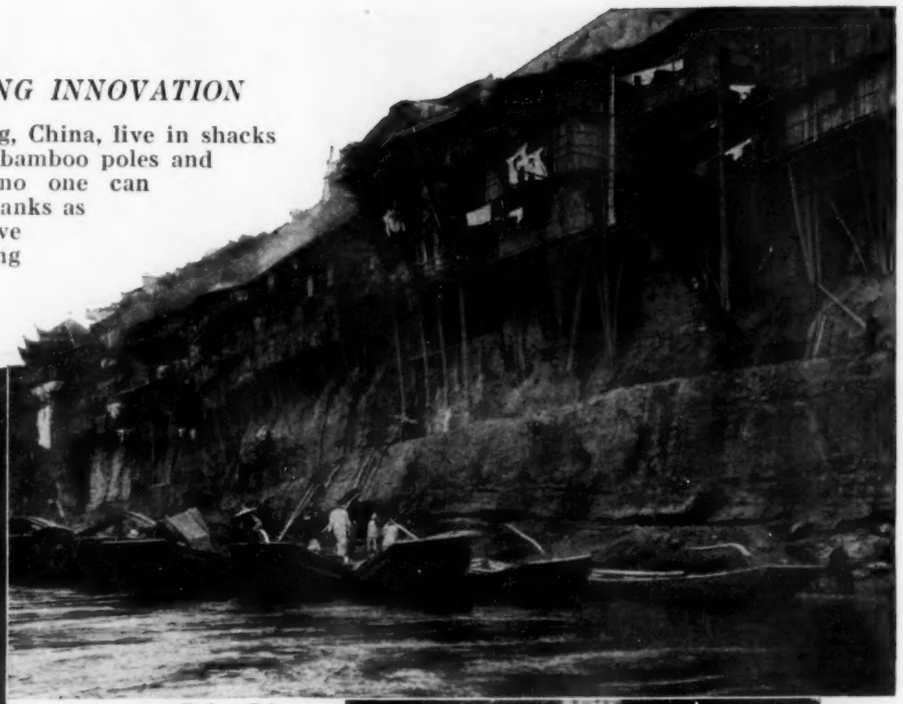


Alvina Lenke

WOMAN OF TOBA, JAPAN, WHO DIVES for lobsters and shell fish to make a living.

CLIFF DWELLING INNOVATION

Natives of Chungking, China, live in shacks fastened to rock with bamboo poles and fiber bands. Since no one can claim the steep river banks as property, the poor live there without paying rent.



Ewing Galloway

Acme

Lewis Gravis, night flyer, has recently swooped down over three burning homes and aroused the occupants.

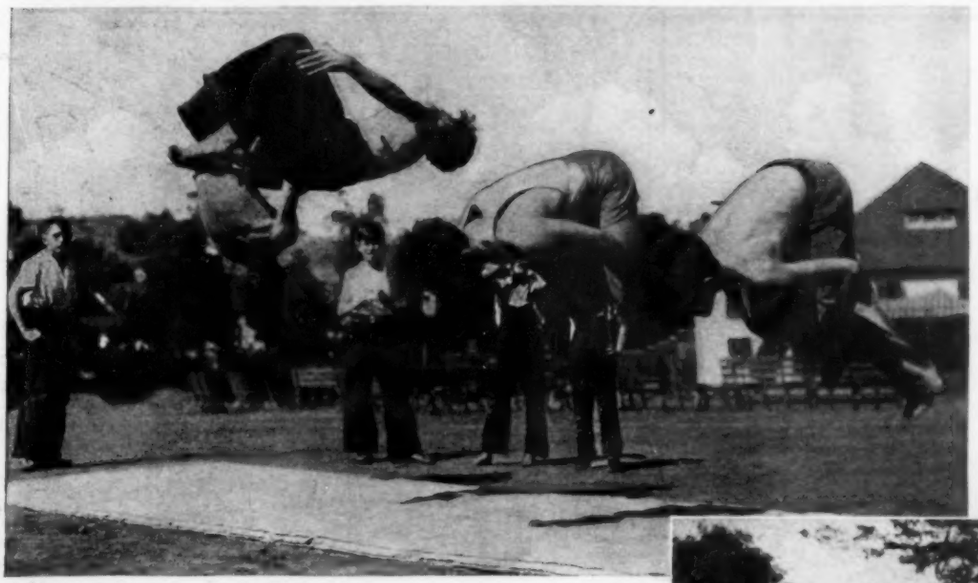
SPORT MEET

Blind men and women hold first regatta in London.

Acme

School girls of Sydney, Australia, during a good posture exercise.

Acme

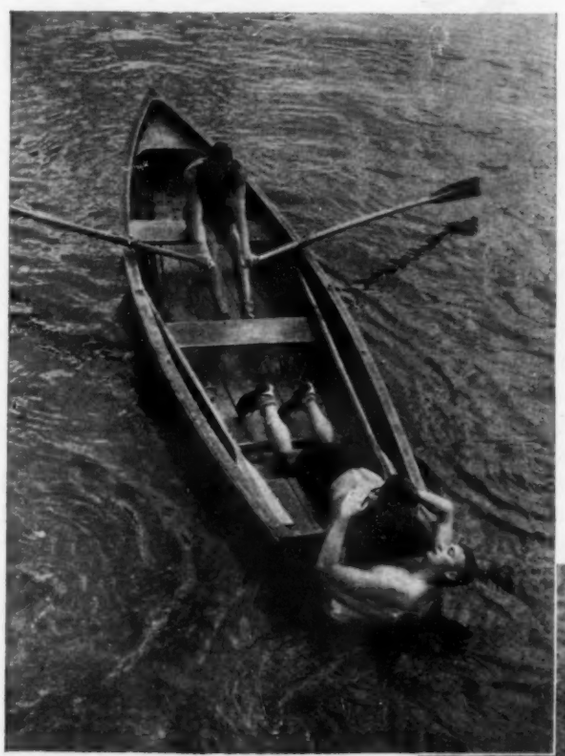


Acme

Young tumblers go on a tour of the Los Angeles city recreation area to exhibit their skill.

TWO COWS MAKE POSSIBLE COLLEGE CAREER of freshman at Westminster College, Missouri.

International Newsreel



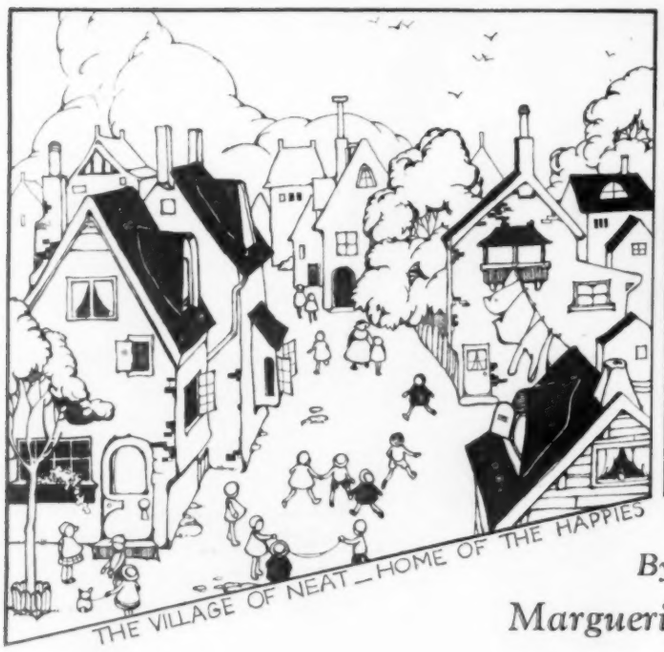
Acme

At the Berlin police school instructions are given in life saving. The correct way is illustrated in the picture to the left.

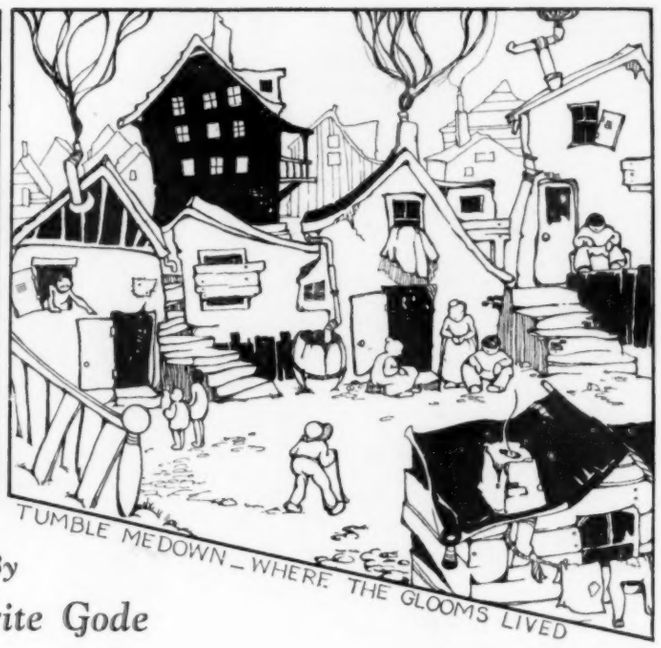
Acme

TIPSY!

The picture to the right illustrates the wrong method of saving a man.



THE VILLAGE OF NEAT—HOME OF THE HAPPIES



TUMBLE ME DOWN—WHERE THE GLOOMS LIVED

By

Marguerite Gode

Nice and Neat

ONCE upon a time there were some ugly little people called Glooms living in the village of Tumble-Me-Down. Just over the fence, neighbors to them, in the town of Neat lived some cheery little folk called Happies.

The streets in Tumble-Me-Down were crooked and narrow. They turned this way and that way until it made one dizzy to follow them; whereas the streets of Neat were straight and long and wide, and the sunshine fairies played up and down them all day long.

Why any one would ever have wished to live in Tumble-Me-Down I do not know

THE OLD KING TRUDGED UPHILL

The houses were rickety and creaky with toppling chimneys and leaky roofs that were never mended.

If Pussy herself had looked for a corner there she would have found it full of rubbish and dirt.

No wonder the inhabitants were cross and stupid. They sat on their dusty doorsteps and mumbled and grumbled until they grew just as misshapen and tired as the ugly old houses themselves.

Now the inhabitants of Neat were not at all like the Glooms. They brushed and scrubbed their little houses until they shone like the colorful picture book cottages in Mother Goose Town. There were cunning little white bathrooms and airy little bedrooms tucked about everywhere under the eaves. These wise little people wanted to be well and strong and clean. That was how they came to be called Happies.

One day the discontented old king of Tumble-Me-Down called a meeting of his subjects to discuss the tragic state of affairs throughout the kingdom.

"Something must be done," he said, "or we shall grow so ugly that we shall not be able to live with one another. Tomorrow I shall hie myself away to the town of Neat where my cousin, young King Cheerfulness, lives happily in his kingdom."

So the next morning the old king bade goodby to the crooked streets of Tumble-Me-Down and started on his journey.

It was a beautiful sunny day in early May. The whole world was astir with pink blossoms

and singing birds that darted their colors against the blue sky.

But the old king did not see these things. He was thinking only about the ache in his back and the tired feeling in his poor wobbly legs as he trudged along.

Whenever he limped up hill he sat down and ate sweet cakes and salty pickled pears. Whenever he limped down hill he sat down and ate salty pickled pears and sweet cakes. And the more he ate the more uncomfortable he felt. Poor foolish old king!

At last the king became so ill he could go no further so he lay down by the roadside and cried himself to sleep.

How long he slept, nobody knows except Old Father Time. When he awakened he found himself in a cool, clean bed with his cousin, the king of the Happies, smiling at him over the tall foot-board.

"Poor old fellow," he said pityingly. "What you need is plenty of rest and good food, and I am going to see that you get it." And the old king was far to weak to protest.

To be sure, he would have preferred sweet meats and strong beverages to the fresh milk and green vegetables plucked from the royal garden, but he dutifully ate what was placed on the tray before him.

Every morning thereafter according to royal orders he took a plunge in the crystal bath and after a hearty breakfast of milk, toast and fresh scallopy eggs hastened out to exercise in the fresh air of the palace court.

It was a new life that he had never known before, but before long the old king began to like it. In fact he grew to like it so well that when the day came for the royal physician to declare him strong enough to return to Tumble-Me-Down village it was with reluctance that he turned away from the cheerful castle with its happy-faced people and followed the winding road home to Tumble-Me-Down.

And what a homecoming it was! At first, his own subjects did not recognize him so changed was he. His crooked old legs were no longer crooked; his crooked old back was no longer bent. He was as straight and tall as a gay tin soldier marching away to war.

The Glooms could scarcely believe their eyes. "What has happened? What has happened?" they cried, as they crowded closely about him. The old king laughed good-naturedly.

"Nothing has happened, my dears," he said. "I have only found happiness and now you shall find it too."

THE CUNNINGEST LITTLE DAIRY

And would you believe it, from that moment, according to Dickory Clock, strange things began to happen in Tumble-Me-Down.

Just as if they had always been in the habit of doing such things, busy little carpenters scampered up the ladders and mended the leaking roofs and toppling chimneys.

Thrifty little housewives put on pink polka dot aprons and scrubbed and scoured the dusty corners and aired the stuffy rooms.

Even the corner sweet shop closed its doors for remodeling and when it opened them again it had turned into the cunningest little dairy you could ever imagine.

And talk about gardens! They simply popped up overnight like toadstools in the dark forest and for the first time in their lives the Glooms tasted the goodness of fresh carrot salad and vegetable stew. Their cheeks took on a rosy hue and their tired eyes became bright and sparkling.

And so we come to the end of our story. Only one thing must be remembered. Tumble-Me-Down is no more. The old sign has been taken down and a new one hangs proudly in its place.

And if ever you wander down to the gay little town of Neat and happen to peep over the fence, you will find neighbor to it a dear little sister town called Nice, in which the good old king and his merry subjects now live—as every one hopes to live—happily ever after.

Four Verses for Little Folk

I

I always
Shine apples
Before I start
Biting;
It seems
To make eating
A lot more exciting!

II

A pep'mint stick
As big as that
Would make me grow
So very fat,
All twisting 'round
Inside of me,
I'd fall about
Most dizzily.
I guess I'll
Leave it stay
Right there
For Barber John,
Who cuts my hair.

III

I like to eat
The spinach out
From underneath
The egg on top.
I watch the bright
Green hill go down
And let the golden
Sun go flop.
And when I've eaten
Every bit
I hold my plate
To cook and say:
"Please let me have
More hills and sun,
So I can gobble
Them away!"

IV

I twist the brush
All roundabout
The empty bottles
Till they shine,
And dry their necks
And put them out
Before the milkman
Comes at nine.
A father quart,
A mother quart,
And one wee thing
Like Baby Bill—
A family of bottles there
Upon our kitchen
Window-sill!

—GRACE ELLEN GLAUBITZ.

HEALTH and the SCHOOL

Edited by J. Mace Andress, Ph.D., 67 Clyde Street, Newtonville, Mass.

Should We Adopt a Five Year Program for Health Education?

THE five year program in Russia has startled the world. A vast country with a large and varied population living on a comparatively low plane culturally and economically has dared to sketch with a bold hand a scheme that may make that nation one of the great industrial nations of the world. One may not be in sympathy with its radical social and political trends and yet may marvel that a nation should embark on such an ambitious program.

Few would deny the necessity of having a plan for any kind of social achievement. In this time of acute financial depression America and other nations are talking about national and international planning on a grand scale to avert similar catastrophes in the future.

Plan Specific Program

The wholesome spirit of planning is being reflected in our educational magazines. The state of Pennsylvania is initiating a ten year program in education. Such movements suggest much to those who are interested in the mental and physical welfare of children. No matter how serious the problems that confront us it will be possible to accomplish more in their solution by planning over a period of years than by adopting a "hit and miss" policy of trying to do the thing nearest at hand.

The first requisite in planning for a number of years is to know the facts. A city, town, school system or school should make a survey to determine vital needs. This may not be expensive. Schools and school systems sometimes conduct their own investigations. Although such a procedure has its weaknesses it usually enlists the interest and cooperation of teachers. After such a survey there will be the difficulty of determining the most pressing problems and of planning a reasonable program over a period of time. If one does not need or cannot have a five year plan some kind of one year plan would be better than none.

A recent survey by the United States Public Health Service among school children in Hagerstown, Md., in some towns in Missouri and in Pinellas and Orange counties, Florida, reveals the extent and character of the illness and the physical defects found in those groups. They may be typical of school children throughout the United States. The six diseases causing most cases of illness among these children were in the order of importance colds, headaches, digestive disorders, tonsillitis and sore throat, toothache, influenza and grippe.

Lists Absence Causes

Those that were most important in terms of the days lost per child were colds, influenza and grippe, tonsillitis and sore throat, measles, mumps and digestive disorders. It was also found that the defects most frequently noted in the physical examinations were decayed teeth, defective vision, defective tonsils, enlarged glands in the neck, excessive wax in the ears and enlargement of the thyroid gland. Although girls were sick oftener than boys, fewer girls than boys had physical defects.

According to this study the average child was absent thirteen days during the school year; more than half of these days were lost because of illness. It is obvious that an improvement in the health of the children not only would result in greater satisfaction and happiness in their work but would enable them to work while at school with greater efficiency and with a record of better attendance. Here is a presentation of facts that suggests the value of careful planning.

No matter what the health program is to be it is essential that it should be well started. Let us suppose that the prevention of colds is to be the goal of a health program in a certain school. This is an illness that leads all others in most schools. The principal or health teacher who is to initiate this program should first get the cooperation of the teachers, school doctors, school nurses and parents. A program if it is successful should be understood and approved by all those who come in contact with the children. It might be well to have the whole matter brought up before a parent-teacher meeting. Cooperation of the parents is especially necessary in this project, since most colds are communicable; children should be encouraged to stay at home at the onset of a cold. More sleep, rest and attention to hygienic living are desirable. These are not to be gained ordinarily unless parents and children work together. Through health teaching the school may hope to guide and motivate children in the right way.

Educate to Prevent Colds

Although the prevention of colds may seem at first to be the only objective it is easy to see that the carrying out of such a program would involve almost every aspect of healthful living. Although there is still much to be learned about colds it is obvious that we know enough so that with united efforts they cannot only be reduced but those contracted may be less serious.

Planning is not to be reserved merely for school systems or a school of several rooms; it is something that the individual teacher may consider. If she will carefully consider the most pressing needs of her pupils and plan a campaign she will get tangible results.

The ability to plan is one of the first qualifications of a health educator. What are your most pressing needs in health education? What plans will you formulate for the New Year?

For Classrooms

City or Town_____

County _____

School_____

Grade_____ Enrollment_____

Months

Maine Public Health Association

HEALTH HABIT CHART

HEALTH HABITS	1						2						3						4						5						6						Grand Total	
	M	T	W	T	F	Total	M	T	W	T	F	Total	M	T	W	T	F	Total	M	T	W	T	F	Total	M	T	W	T	F	Total	M	T	W	T	F	Total		
Cleanliness																																						
1																																						
2																																						
3																																						
4																																						
5																																						
Diet																																						
1																																						
2																																						
3																																						
Sleep																																						
1																																						
2																																						
3																																						
Fresh Air																																						
1																																						
2																																						
3																																						
Postural Habits																																						
1																																						
2																																						
3																																						
Exercise and Safety																																						
1																																						
2																																						
3																																						
Other Habits																																						
1																																						
2																																						
3																																						
4																																						

SCHOOL HABITS

*1. Has clean hands, nails, neck, ears, teeth, handkerchief, outside clothing, underclothing.

*2. Has no evidence of skin disease - no evidence of communicable diseases, including colds.

3. Wears necessary articles of clothing - clothing buttoned, hair neatly combed.

*4. Keeps objects out of mouth, nose and ears.

*5. Uses own drinking cup and does not dip it in the pail.

6. Does not put mouth or hands on bubbler.

7. Keeps desk in order.

8. Helps to keep room and yard neat and orderly.

*9. Washes hands thoroughly before eating noon lunch.

10. Leaves desk and floor neat after noon lunch.

*11. Washes hands after going to the toilet.

12. Cleans shoes or rubbers when not possible to remove footgear.

*13. Brings well balanced noon lunch.

14. Contributes to the hot lunch.

15. Sits quietly until lunch is finished.

16. Uses a napkin well.

17. Does not eat sweets at recess.

*18. Drinks water between meals.

*19. Takes off rubbers, extra coat and sweater when not needed in school.

*20. Puts on all outdoor wraps before going out at recess and before going home.

*21. Plays out of doors at recess, weather permitting.

22. Takes some exercise at recess - sits and stands in the sun.

23. Has good postural habits.

24. Has good toilet habits.

*25. Is careful not to injure himself or others while at play.

*26. Is careful when crossing the street.

27. Does not play in street or beside the road.

HOME HABITS

1. Sleeps number of hours required for age.

2. Sleeps with windows open.

3. Has one or more full baths each week. (Tub or sponge.)

4. Brushes teeth each day.

5. Attends to toilet needs. (At least one bowel movement each day.)

6. Drinks milk.

7. Eats soup, pudding, custard made with milk. (For children who do not drink milk.)

8. Eats one or more vegetable beside potato every day.

9. Eats a nourishing breakfast (should include cereal and some nourishing liquid).

10. Does not drink tea or coffee.

11. Eats some fruit each day - some coarse bread.

NAMES OF PUPILS

TEACHING HEALTH

(In this column will be published each month concrete examples of good health teaching. Teachers are invited to send in contributions not exceeding 600 words and preferably less to the editor of this department. Illustrations of the actual work of children will be welcomed. Contributions accepted will be paid for but no manuscripts will be returned.)

HEALTH HABIT CHARTS FOR CLASSROOMS

WITH the opening of schools there is the ever increasing demand among teachers for health education material. Maine, like other states with rural problems, must have something tangible to place in the hands of the teacher who needs supplementary material, of the teacher whose group is too large to permit her to develop her own health habit activity, and of the inexperienced teacher to whom the subject of health is more or less confusing.

Individual health habit charts were used in both the rural and urban schools of Maine for a period of more than ten years. The health habit charts for classrooms are an outgrowth of a demand for something new in the way of a health habit activity.

The classroom charts have many advantages over the individual charts. They hang on the wall in a conspicuous place instead of being out of sight in the child's desk. The chart covers five days instead of seven, leaving the responsibility for the health habits formed or practiced on Saturday and Sunday to the parents. They may be adapted to all grades and may be used with both rural and urban groups and adapted to the needs of the group and the age level of the pupil.

Explanation of Health Chart

Maine teachers are supplied with two charts of different colors, pink and yellow, each covering a six-week period. Charts used in Idaho and Wyoming are designed to cover a twelve-week period. A space in the center divides the chart into an upper and lower half. The upper half is used during the first six-week period and the lower half during the second six-week period. When two charts are used the second chart should not be placed on the wall until the record on the first chart has been completed.

There are twenty-seven school habits and eleven home habits listed on the right side of the chart. The school habits are not all habits that are formed at school but are habits that may be checked up at school. In checking home habits pupils should be judged by appearance as well as by reports. The teacher may include in the list selected any additional habits that she and her pupils feel that this group need to form, such as habits of courtesy or thoughtfulness.

Since the activities in which the pupils participate in the classroom are the means by which they learn, it is important that the activity be conducted, in so far as it is possible, by the pupils. If the work is carefully organized by the teacher it will take only a few minutes for the morning inspection and the marking of the chart, even though the group is a large one. A pupil should be chosen to act as proctor or captain for a period of one week. The teacher and the pupils may discuss the habits that they think should be stressed over the first period. With the help of the teacher the pupils may list the habits plainly on the left side of the chart.

Develop Habit Formation

Most satisfactory results will be obtained by starting with the easier habits and working up to the more difficult ones. A good habit that has been formed may be dropped from the list but should be included in the morning inspection. The class should not make the mistake of practicing only habits that have been formed; neither should they select habits so difficult that it is hardly possible to obtain desired results. The twelve habits selected should be listed on the left side of the chart. Six of the habits should be selected from the starred essentials, two at least from the home habit list and the other four selected from either list.

The morning review, or inspection, directly following the opening exercises, should be given every day even though the charts are used only twelve weeks. The pupils may inspect themselves in the classroom mirror for cleanliness habits, general appearance, or posture. Ask for volunteers and stimulate in each pupil a desire to participate. The child may decide for himself with the help of the teacher whether or not Judge Mirror can give him a point for himself and his class. Any method of morning inspection that brings results may be used provided children are not humiliated before the class. Credit should be given to the child who does better, who comes from a home in which there are only bare necessities.

To encourage teachers to show originality in using the charts a small honorarium is offered for the most improvement in the habits of the pupils and in the school housekeeping. The material used, including the charts, must be submitted.

A resourceful teacher in grades I and II in one of our normal training schools divided her group in two sections. On the left side of the chart opposite "Names of Pupils" were pasted pictures of bears. Over this was written "The Jolly Health Bears" and the names of this group were listed in the spaces nearest the pictures. On the right side were pasted the pictures of bunnies over which was written "The Happy Health Bunnies" and the names of this group written in the spaces nearest the pictures.

Organizing the Chart Campaign

The students chose their captain. The morning inspection was made in the classroom mirror, the teacher helping them to decide on the points. Each captain wrote on the board the number of points to which his group was entitled and the class found the total that was listed on the chart by one of the captains. The pupils in the same way found the total for the week and the grand total for the six-week period. The teacher reports a great interest in the activity and a marked improvement both in the appearance of the school and the school work.

The Health Habit Trophy, indicating that the class has met certain requirements, the plan or outline stating how the charts are to be used, and the blank to be used by the teacher in reporting at the end of the twelve-week period may be obtained from the organization distributing the charts.

ABBIE M. BUCK,
Augusta, Maine.

ACROSTIC LETTER LISTS CAFETERIA RULES

WITH the opening of a cafeteria in an elementary and a junior high school the pupils of which had had no cafeteria experience, I wrote and made enough duplicate copies of the letter below to give one to each child in the schools.

To make the appeal more personal, I suggest having each teacher put the individual names of her pupils on the letters. I could not do this as I sent out more than a thousand.

The acrostic attracted some children immediately; it necessitated repeated readings by some; it held the attention of them all; hence, it served its purpose, namely that of keeping the idea expressed in it before the children long enough for them to assimilate its meaning.

There are social, health, economic and personal implications in this letter that were of value to the children and the school. This acrostic may be of service to you. It offers language, reading, health and arithmetic correlation.

Dear Pupils of the ——— School:

Please read this over carefully and look at it often.

C an you remember to wash your hands just before eating?

A lways go to and from the cafeteria in an orderly manner.

F ind out what is being served, as you wait in line.

E ndeavor to choose the foods that are best for you.

T ell your mother what you eat each day.

E at, drink and be merry, but not noisy.

R emember to wear no wraps or hats in the cafeteria.

I nstead of mussing up the place, please help to keep it clean.

A lways carry your tray to the window, and leave the room by the door marked "Out."

LOUISE HENDERSON,
Salt Lake City, Utah.

BE CLEAN LIKE THE BIRDS

"WHY can't we do something different? We have made posters all year. Let's think of something new." In chorus the children of the fifth grade protested against the usual plan of posters to exhibit on Health Achievement Day. Cleanliness was the subject with which the fifth graders were to deal. Couldn't some original idea be used for display?

Inspections and charts were methods used to obtain cleanliness habits for the greater part of the year, but in May hygiene and nature study had been correlated. Birds and their habits were studied; their cleanliness showed good health habits. Cleanliness was profitable for the birds. Why should it not be for children?

A hand was raised and the suggestion of a bird bath to illustrate cleanliness for the exhibit was made. It was instantly approved. For the next few days, the children busied themselves in the construction of a bird bath. One of the boys obtained a table as a base. Another boy went to the store and was given a large piece of cardboard. It was a cigaret advertisement. How glad the children were to cut it and use it far more advantageously than its former use as advertising had been! As one boy remarked,

"Ma'm, I'm shoo glad that we could get that sign out of sight."

The children borrowed a tin pan about a foot in diameter and filled it with water and put the pan on the cardboard. Other children went after sod and put it around the pan. This was the lawn, so of course it had to be mowed with a pair of scissors.

More plant life was needed, so they took their climbing bean and set it in the lawn and let it climb

up and across to an old cattail stalk. On the stalk they put a sign which read, "Be clean like the birds."

But birds were needed! They came from the ten cent store. One was placed in the center of the pan and the other one was put on the lawn.

The children were proud of their work. They not only produced a thoughtful cleanliness reminder, but found healthful activity in doing so.

PHILOMENA FALLS,
Inkster, Mich.

NEW HEALTH BOOKS AND TEACHERS' MATERIALS

THE up-to-date teacher of physiology and hygiene will find Dr. Howard's "The Insect Menace"[1] both fascinating and practical. This delightful volume has the charm and also the thrills of a great detective story as well as the accuracy of a work of science.

Although apparently small and insignificant, insects have always threatened the existence of man. His food, property and health have always been subject to their attack. Insects consume grain in the fields and other foods, such as ham, butter, lard, bread, raisins and salted fish; they destroy shoes, gloves, paintings, photographs and the timber of houses. They spread pestilence and death. Having lived many millions of years before man they have acquired certain tricks of adaptation that make them formidable enemies. They surpass man at almost every point except in the development of the nervous system.

With the advance of civilization the insects have found it easier to survive because there are vast accumulations of food and because they themselves have been widely disseminated by modern methods of transportation. When it is known that there are at least 500 species of insects that feed on apple trees, we realize that the battle is not yet over. Dr. Howard suggests that unless we get busy we may lose the fight. Dr. Holland prophesied that the last living thing on the globe will be some active insect sitting on a dead lichen, which will represent the last of the life of plants. Dr. Howard, however, furnishes evidence to show that the world is waking up and is achieving some success in battling with the uncounted billions of insects that threaten the very existence of man.

Teachers of health and their pupils will enjoy some of the thrilling chapters of this warfare. In the teaching of physiology many of the interesting illustrations and facts about the way the insects breathe, digest their food and adapt themselves to the world should prove illuminating.

There is so much new material in this book and the author's observations are so penetrating and amusing that it should find a place in every library and be used for reference by students in advanced classes. Teachers in the upper grades will have no difficulty in finding several unique lessons in this book bearing on health and science.

THE problem of how learning takes place is of fundamental importance to teachers, since teaching really means nothing more than the arrangement of situations so that the pupil will learn. Until we know how children learn we cannot expect to teach intelligently or efficiently. Therefore, "Human Learning,"[2] an account of Dr. Thorndike's researches, will be of universal interest to teachers.

Dr. Thorndike's conclusions are in harmony with those presented in his previous books but they are reinforced by many facts. One emphatic point in this study is the lack of value in mere repetitions. In response to the question as to whether "the more frequent connections tend, just because they are more frequent, to wax in strength at the expense of the less frequent," he replies with "No." Such repetitions, he says, may change an indi-

1. By L. O. Howard. Pp. 347. Price, $3.50. New York: Century Company, 1931.

2. By Edward L. Thorndike. Pp. 202. New York: Century Company, 1931.

vidual "as little as the repetition of a message over the wire changes the wire." Mere experience is valueless. This is a point worth careful consideration by health educators for there has been too much mechanical drill in habit formation. If such drill is not accompanied by satisfaction it will not accomplish its purpose. Insights, attitudes and interests are fundamental. When this principle is rightly interpreted it will mark the passing of mechanical training in health habits.

UNFORTUNATELY the names of the author and artist are not given in this delightful children's booklet, "Let's Grow." [3] It is based on the child's interest in animals. The illustrations are full of life and action. Each picture covers a full page. On the opposite page is a health rhyme. On the first page, for example, is a large drawing of a cat sitting on her hind legs. A fairy is washing the cat's hands. The rhyme on the opposite page is

"Be sure your hands are clean
and neat
Before you touch a bite to eat."

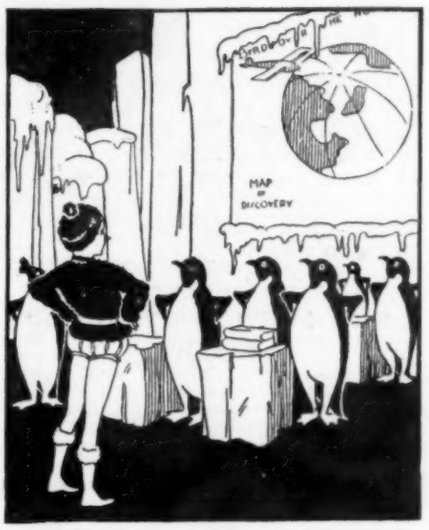
Try this booklet with the little folk in your primary grades.

IN THIS period of serious economic depression the problem of the school lunch is naturally of greater importance than ever before. Schools will attempt to make special efforts to provide for the physical welfare of their pupils. In accomplishing this purpose the school lunch promises much in providing nourishing food for children and in teaching them to make wise choices from the luncheon menu. It is only recently that school authorities have appreciated the educational opportunities afforded by the school lunchroom.

In this attractive pamphlet, "Lunch Study Report," [4] the National Dairy Council tells about its experiments in teaching health through combined classroom and lunchroom teaching. The practical suggestions in this publication will immediately recommend themselves to all those who are keenly interested in the teaching of nutrition.

IT IS the chief business of the child to grow up, and the function of the teacher is to promote growth in a broad way. To understand the forces that operate in physical, mental and moral development is to assume a strategic position in the guidance of boys and girls.

The authors of this brief and elementary book, "How Normal Children Grow," [5] present an excellent introduction to the subject for parents. Teachers will also find it worth reading. In the discussion of the mental growth of children attention is called to the child's interests. No other aspect of child life is of greater significance. "Interest is the great driving force of life. It constitutes both the most effective urge to accomplishment and the chief reward of accomplishment fulfilled."



Body straight and head erect
Is the posture to select.
—From "Let's Grow."

ALTHOUGH there has been a rapid decline in the tuberculosis death rate within the last decade, the disease is still a formidable menace to life, and teachers need to have the latest and most reliable information concerning it. Dr. Brown and Dr. Heise have rendered a distinct service by writing a book on the early stages of tuberculosis—the crucial time when the disease should be detected and treated. This volume, "The Lungs and the Early Stages of Tuberculosis," [6] is primarily for the doctor or advanced student of hygiene, but it would be useful in the teacher's library.

THE care of children and sick in the home is a responsibility that every adolescent is likely to be called upon to assume as part of the duties of worthy home membership. Therefore this attractive volume [7] should be another welcome source of reference for junior and senior high school pupils.

ANYTHING that Dr. Watson writes is worth reading if for no other reason than its power to stimulate thought. The appearance of his first edition of "Behaviorism" was like a firebell in the night. It aroused from their sleep psychologists, teachers and parents. Much of what they had long believed to be true seemed to be in jeopardy. Consciousness was declared to be a myth and there was a sarcastic thrust at those whose gullibility had led them to swallow the orthodox beliefs about instinct. The book was bitterly attacked and ridiculed by some and lauded to the skies by others who believed that its appearance marked a new epoch in psychologic theory and educational practice.

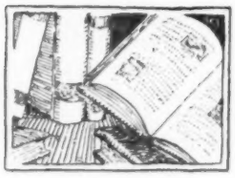
The smoke of battle has not yet cleared away, but it is clear that Dr. Watson has won many converts and forced psychologists to revamp their subjects whether they thoroughly accepted behaviorism or not. The new edition [8] contains about 100 pages of new material and there has been some rewriting of old material but Watson's theory of behaviorism remains practically the same as it was before.

Watson's theory has a direct bearing on health education as is shown by our constant references to health behavior. He sounds the trumpet of optimism in education. To him nearly everything is possible through training. Here is what he has to say about changing the personality:

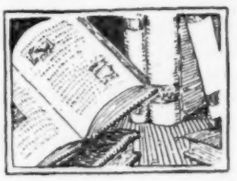
"What do we have to do to change the personality? There must be both unlearning the things we have already learned and learning the new things, which is always an active process. Thus the only way thoroughly to change the personality is to remake the individual by changing his environment in such a way that new habits have to form. The more completely they change, the more personality changes. Few individuals can do all this unaided. That is why we go on year in and year out with the same old personalities. Some day we shall have hospitals devoted to helping us change our personality because we can change the personality as easily as we can change the shape of the nose, only it takes more time."

Project yourself into the future, Mr. Schoolmaster or Miss School Mistress. Are you becoming cross and irritable? Do little things annoy you? Go to a hospital for sick personalities. Stay a few weeks or months and you may return to your home and classroom with an attractive personality.

3. Pp. 20. 51 Warren Avenue West, Detroit: Tuberculosis and Health Society, 1931.
4. Pp. 15. Chicago: National Dairy Council.
5. By John E. Anderson and Florence L. Goodenough. Pp. 28. New York: The Parents' Magazine.
6. By Lawrason Brown, M.D., and Fred H. Heise, M.D. Pp. 151. Price, $1.50. New York: D. Appleton and Company, 1931.
7. Home Nursing and Child Care. By C. E. Turner, Nell Josephine Morgan and Georgie B. Collins. Pp. 282. Boston: D. C. Heath and Company, 1930.
8. Behaviorism. By John B. Watson. Pp. 308. New York: W. W. Norton & Company, 1930.



New Books on Health



THE CARE AND FEEDING OF ADULTS

With Doubts about Children. By Logan Clendening. Price, $2.50. Pp. 317. New York: Alfred A. Knopf, 1931.

LOGAN CLENDENING, strangely enough, feels that the reading of health books by adults will make them harder to keep healthy than children. He presents therefore a strange contradiction, since he writes books of instruction relative to the human body in health and disease and at the same time condemns them.

His present book is largely a condemnation of periodic physical examination and of a great many other current procedures in the health field. He outlines as a few positive recommendations for adults who would remain healthy the following:

Get a doctor of your own.

Avoid cathartics as you would the appearance of evil.

* * * * * * * * * *

Practice moderation.

Eat meat and salt.

Keep your religious observances and cultivate the friendship of a wise priest.

Use rest as abundantly as you do exercise, the more so as the decades pass.

Do not expect a miracle—or that you will lift yourselves by your own boot-straps. Your arteries will not get softer as time goes on.

Dr. Clendening realizes that mankind is not wholly rational in its health habits. Every one, including doctors, knows that the proper thing to do on catching cold is to go to bed for three days, but it is doubtful that even one half of 1 per cent of adult human beings follow this advice under such circumstances. On the subject of exercise, Dr. Clendening is an extreme conservative. He realizes that exercise does not apparently prolong life and that it may be a serious matter for a man past middle age. Of clothing, he says that there are more offenses against health on the basis of the beauty of clothing than on the strictly physical basis. Concerning tobacco and alcohol, he points out that moderate indulgence does not appreciably shorten life.

Other subjects discussed are sleep, nursing care, normal diet, the food that mother used to make, meat, salt and weight reduction. The concluding chapters express the doubts of Dr. Clendening on behaviorism, birth control, sex and psychology.

Doctor Clendening writes with an acid pen and with a fine sense of the dramatic. His description of a meeting on the subject of birth control, which occupies pages 281 and 282 of this highly interesting and amusing opus, deserves complete and permanent recording in some anthology or health book that will make it available to the minds of the intelligent for many years to come.

MORRIS FISHBEIN, M.D.

THE SCIENCE OF HUMAN LIVING

By Mae Johnson Corwin and Walling Corwin. Cloth. Price, $1.68. Pp. 464, with numerous illustrations. San Francisco: Harr Wagner Publishing Company, 1931.

"THE Science of Human Living" is offered as a practical health book for use in junior high schools. It follows the lines of other books on the subject. In the stress for simplification, words are sometimes used that convey wrong impressions. Few physicians will agree with the authors that drinking plenty of water is much better and does the same work as laxatives. Children are warned against eating ice cream because it cools one while it is eaten, but when it comes to the cells, it makes one warmer; this hardly conveys an accurate impression. In the discussion of vitamin C, the authors point out that "since babies have been fed vitamin C, the average length of life of people in the United States has increased from 25 to 58 years." It might also be pointed out that since babies have been fed vitamin C, motor cars have become popular and people fly around in airplanes, but there is no proved relationship between these two facts.

In general the book is sound. It avoids health fads. The chapter on "Narcotics and Stimulants," however, condemns tea and coffee unreservedly both for children and adults with quite exaggerated statements concerning their harmful effects. In the same way the writers condemn tobacco, and the authors seem to believe that drunkenness has entirely disappeared from the United States following the passing of the Eighteenth Amendment. The book would be a better health book with this chapter entirely omitted.

M. F.

WE TAKE TO BED

By Marshall McClintock. Cloth. Price, $2.50. Pp. 321. Jonathan Cape & Harrison Smith, New York, 1931.

NO TRAGEDY in human life has greater force than that of the development of tuberculosis. In most cases the disease strikes the individual in the period between the second and third decades just at the time when life is at full tide. To draw such an individual suddenly from the stream of life and to throw him into the eddy of apparent inactivity necessary for a cure as a rule produces such a psychologic shock as to require all his adaptability, judgment, patience and courage. For this reason, tuberculosis remains the greatest psychologic problem with which mankind has to contend. It has been said that the toxins of tuberculosis and syphilis have been responsible for most of the geniuses the human race has developed. Granted that this is true, it is curious that literature contains no classic which describes all the emotions inherent and environmental which may be caused by this disease.

"We Take to Bed," describes the experiences of the author and his wife at Saranac Lake. He tells the story of his experiences just as they would appear in the Sunday supplement of a popular newspaper. One has the feeling that the author either had superficial emotions or that he purposely chose to skim merely the surface of the vital experiences through which he went. As a graphic superficial story of what two individuals may go through during a sojourn at a tuberculosis resort the book is worth reading.

Any one who knows Saranac Lake will recognize all the points in regard to life there which the author brings out. He is somewhat sophomoric in his portrayal of the personalities of the doctors and nurses with whom he came in contact. He is somewhat pseudoscientific in his description of his experiences in clinical laboratory work, but he describes clearly the care and system used in sputum examinations and urinalyses. He is more inclined to show the faults rather than the virtues of the system developed by Dr. Trudeau and so ably carried on by his successors.

A. M. FORSTER, M.D.

QUESTIONS and ANSWERS

Compulsion Neurosis

To the Editor:—Will you kindly tell me what is the cause and cure of a compulsion neurosis? What relation has it to general health?

A. C., Missouri.

Answer.—The cause of compulsion neurosis is a sense of guilt and fear acquired in childhood connected with some feeling of having to do something in expiation of the fancied source of the sense of guilt. There are two types of cure. Reassurance and interest in other things can displace the control of the sense of guilt when it is not severe. When severe, some type of analysis and understanding of the cause of the condition is necessary.

There are conditions in which the general state of health seems to suffer little, if any. More commonly the compulsion ideas are not the only evidences of the sense of guilt or fear. In the latter condition any degree of disability is possible.

Autogenous Vaccines

To the Editor:—Please explain what is meant by an autogenous vaccine and what are its uses. Could it be used to heal infected glands of the neck, which are discharging pus? Is it still in the experimental stage or has it been accepted by the medical profession?

H. W. B., Iowa.

Answer.—An autogenous vaccine is a vaccine made with cultures of the bacteria grown from the lesions of the patient on whom it is to be used. In other words, the bacteria contained in the vaccine represent the identical strains or races that are causing the infection in the patient. The reason for the use of such vaccines lies in the fact that individual races within the same bacterial species may possess entirely different antigenic properties. The simplest illustration of this is the type differentiation of the pneumococci. Among the micrococci and streptococci such type differences are even more manifold. A stock vaccine, therefore, although containing bacteria of the same species as those in the lesion, might be antigenically useless in the given case.

The newer knowledge of bacterial dissociation makes it necessary not only to use antigenically homologous strains but to maintain the smooth or antigenically complete stage of the bacteria during vaccine production.

The use of autogenous vaccines is a sound procedure and is in no sense an experiment. However, vaccine treatment is in each case a clinical experiment in which the nature of the infection, the stage and rapidity of the infectious process and the general condition of the patient must be appraised. Success is possible in suitable cases, but is not achieved with regularity.

Vaccine treatment should never be carried out in a routine manner but dosage, frequency of injection and duration of treatment should be regulated by careful observation of the individual case.

Endometrial Cyst

To the Editor:—A prominent gynecologist in describing an operation on my wife referred to it as the removal of an "endometrial cyst of the right ovary." The closest reference in medical literature that I could find was "endometrium, a lining of the womb." There does not seem to be any connection with the ovary. Just what does endometrial cyst imply? If such a cyst should rupture before its removal, would serious illness follow?

G. M. K., New Jersey.

Answer.—An endometrial cyst of the ovary is a cyst containing blood that is produced in the cystic cavity by cells that are endometrial in type, meaning that these cells are identical in type with, or cannot be differentiated from, the cells of the endometrium lining the womb. Such cysts are common, well recognized, not new, and often rupture. This rupture may not produce any symptoms; often the rupture permits these "endometrial" cells to reimplant variously over the pelvic surfaces and so spread the condition now known as pelvic endometriosis—a condition important but not essentially serious.

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a two-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed. Anonymous letters are ignored.

Psyllium Seed

To the Editor:—Where can I obtain data as to the various types of psyllium seeds or similar seeds used for the same purpose? What are the dangers, if any, attached to the use of these seeds? Are they habit forming?

C. W. S., New York.

Answer.—The name psyllium has been applied to the seeds of several species of European plantain. It is stated that the best are dark reddish brown to black in color. Flaxseed has properties similar to psyllium but it has a slight though not unpleasant odor and taste. It is possible that other seeds have been used as psyllium and that they have similar mucilaginous properties. Psyllium acts as a mild laxative by virtue of its indigestibility and mucilaginous character. It is not habit forming.

Head Lice

To the Editor:—What treatment can you suggest for a persistent case of head lice? The usual remedies of larkspur and of kerosene are ineffectual. Of course, cleanliness has been rigidly adhered to. It is not a case of reinfection. The lice are simply not fazed after thorough soaking in the solutions named. Isn't there something new, something that does not require prolonged, inconvenient soakings, useless as they are? It is discouraging to find the vermin undisturbed even after a shampoo that makes the head almost surgically clean.

L. P. J., Iowa.

Answer.—A persistent case of head lice in a member of a family living abreast of the spirit of the present age would offer some doubt as to the correctness of the diagnosis. Careful investigation should be made to exclude piedra, trichorrhexis nodosa, Leptothrix infestation or monilethrix as possible causes of the symptoms concerned in this complaint. These are fungus or other diseases that may simulate in appearance, to the unskilled observer, the ova seen on the hair in pediculosis capitus, or head lice.

When children are growing up in an unfavorable environment and have become lousy, there is often a secondary pyogenic (pus) infection, following the erosion caused by scratching; moreover, the infec-

tion is encouraged by the serum and pus matting the hair, thus favoring the production of a filthy vicious circle.

The application of a 50 per cent petroleum solution, thoroughly applied and left on for from twelve to eighteen hours, followed by a thorough shampoo of tincture of green soap or some other good soap, goes much more than half way in curing a case of head lice.

When pyogenic (pus) infection has ensued, there should be rubbed into the infected areas of the scalp, a zinc oxide ointment, carrying 2 per cent of ammoniated mercury. This will control the infection and protect the excoriated areas of the scalp from undue irritation caused by frequent shampooing and other applications. The ointment should be again applied before the shampoo and at least twice daily until the excoriated areas have healed. Following the shampoo, brushing the hair twice daily with a brush that has been wet with a liquid composed of one grain of bichloride of mercury to the ounce in a 50 per cent solution of spirits of cologne will be found pleasing to use and may be depended on, if properly applied, to cure any case of head lice. Other effective treatments may be used.

After the head has been soaked and shampooed, kerosene, xylol, vinegar, a 50 per cent solution of acetic acid or a 1 to 40 dilution of carbolic acid brushed through the hair will destroy the ova that may have escaped.

Canker Sores

To the Editor:—My husband is much troubled with canker sores in his mouth. They get big and troublesome so that at times it makes him sick all over. Could you tell me what treatment we could follow? Or what can be eliminated or added to his diet? We are missionaries in Africa and as it is difficult to get a physician, I am making this appeal to you for your assistance and advice in this matter.

A. C. B., West Central Africa.

Answer.—The cause of canker sores is so far undetermined. They occur sometimes singly and sometimes in crops. Some persons have been successful in getting rid of them by eliminating a particular food or foods from the diet but the offending article differs widely, nuts being one of the most common. This has led to the belief that canker sores are an expression of protein sensitization that occurs on the mucous membrane of the mouth, like hives do on the skin, and the mouth being moist tends to cause ulceration in the injured region, infection setting in secondarily.

The way the particular offending food or foods is determined is simple but takes patience. Each day a list of foods eaten is kept and a comparison of menus eaten the day before an outbreak often points to the offender.

However, when it is a common article of diet, such as wheat flour, eggs or milk, there may be no intermission between attacks. In this case the best way to go about the problem is to eliminate all but one article of food from the diet for three days. Milk with cream is the usual food allowed to begin with, allowing 1 quart of milk with 1 to 1½ pints of cream a day in order that the caloric intake may be adequate. If milk contains the offending protein, of course there will be no cessation of symptoms, in which case a cooked cereal with sugar makes the best alternative. One new article of food is added every three days until the article is added that causes an outbreak and henceforth that can be eliminated from the diet.

It is the opinion of other students of this subject that infection is the primary cause of canker sores, but so far no causative organism has been isolated.

During the past couple of years the bearing of a well balanced diet on general tissue resistance has been demonstrated and it seems that vitamin C has more to do with resistance to infection of mucous membranes than any other factor and vitamin A next.

In individuals with a mild vitamin C deficiency the gums are liable to be spongy and bleed easily. If this condition exists, the citrous fruits, tomatoes, celery and lettuce in large quantities have been found especially helpful.

If there is a vitamin A deficiency, the person takes cold easily, may have chronic sinus trouble or ear trouble or red eyes. This is helped by taking foods rich in vitamin A, prominent among which are the yellow foods, butter, cream, egg yolk, cod liver oil, oranges and carrots.

Some benefit has resulted in rare instances from the withdrawal of all raw foods from the diet for from ten to fourteen days and then the cautious addition of them.

Cathartics are likely to irritate and prolong the condition rather than to alleviate it.

Whatever is the cause of canker sores a simple remedy that relieves in a majority of cases is the use as a mouth wash of a saturated solution of potassium chlorate in water. A tablespoonful, undiluted or diluted, not more than one to one with water, should be used three times a day. Do not take fluids or food for one-half hour afterward. As soon as healing is well on the way, discontinue the mouth wash as prolonged use is irritating.

Artificial Eye

To the Editor:—My little girl, 2½ years old, recently met with an accident that made it necessary to have the left eye removed. The artificial eye has been fitted but is apparently not satisfactory, as it has been changed by the doctor a few times. The removal of the eye at night causes a great amount of trouble and I am wondering if there is not some kind of an artificial eye that could be left in permanently.

H. C. S., South Carolina.

Answer.—A well made and well fitting artificial eye does not have to be removed at night. Removal once in twenty-four hours is sufficient and then only for the sake of mechanical cleansing. In all probability, there is a slight abnormality of the eye socket so that the stock eye does not fit well in the socket and keeps up a mechanical irritation. In that case, it would be well to get into touch with the artificial eye makers and have an eye made to order.

Several artificial eye makers send their experts into various large cities for that purpose and undoubtedly the local physician can find out when the next one will be in the vicinity. An artificial eye can be made for an individual socket within two hours so that a long stay is not necessary. The cost of the made-to-order eyes is usually about $25.

Growling of the Stomach

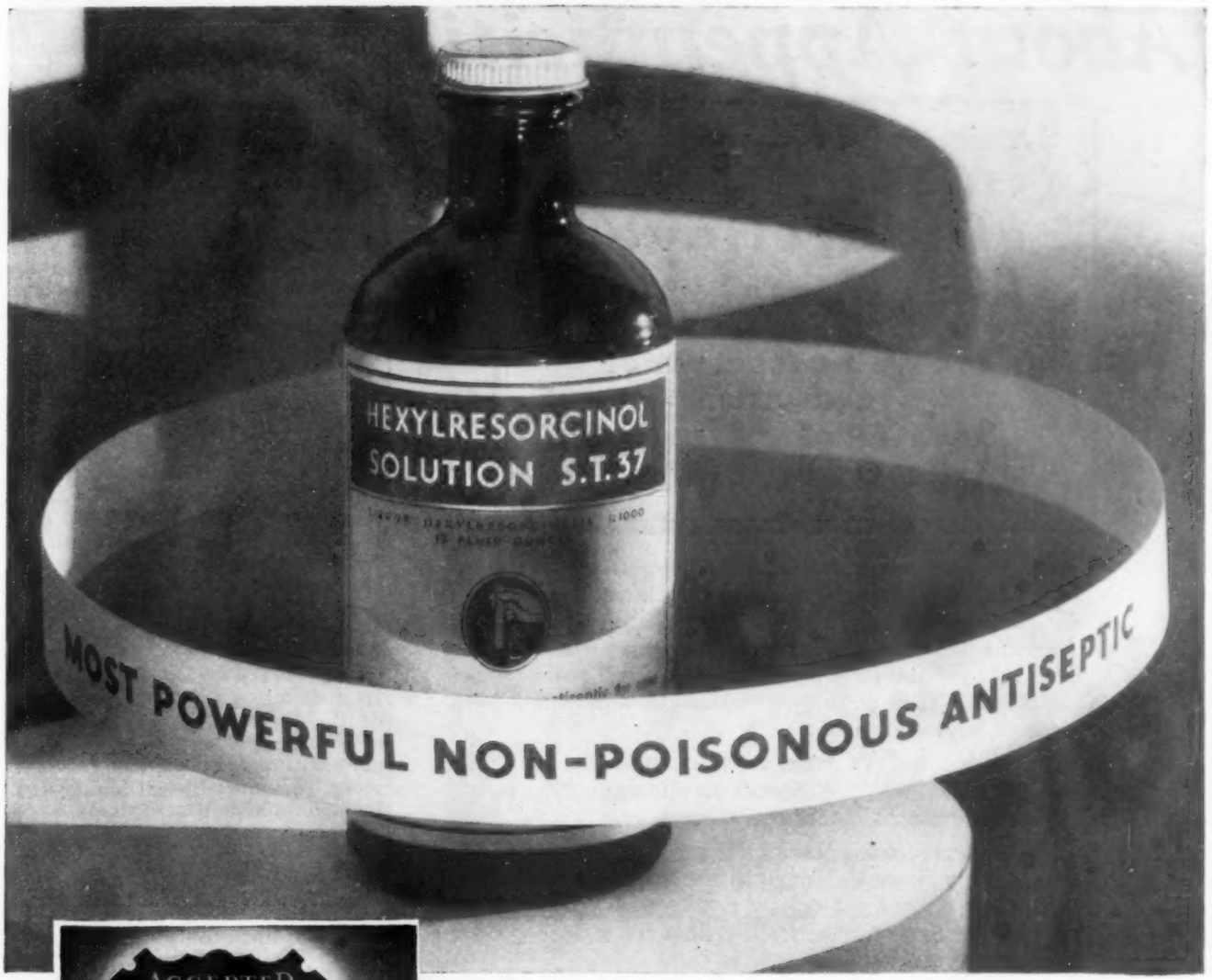
To the Editor:—Can you advise me what causes growling or murmuring in the stomach? What is a remedy?

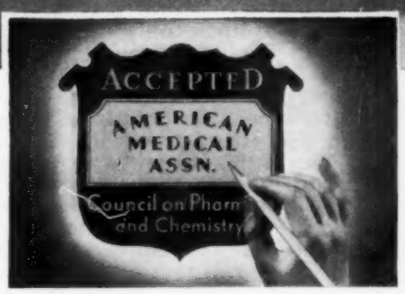
H. M. G., Illinois.

Answer.—Growling or murmuring in the stomach may occur in organic disease, particularly in pyloric obstruction. Usually it is a functional affair and has no serious significance. Frequently it is due to the presence of an excess of gas, which may come from an abnormal fermentation of foods. However, the gas frequently may be due to atmospheric air, which has been swallowed during the taking of food or liquid, or during sighing. It is made worse by emotional strain, due to any cause, and by strong soups, condiments and coffee. Absence of pain speaks for a functional trouble.

A careful complete study including laboratory and x-ray examinations should be made to rule out organic disease. If the trouble is due to swallowed air, this may be remedied by correcting any habit by which abnormal quantities of air may be swallowed.

A reduction of the starches and sugars is also of value, and the avoidance of condiments, tea, coffee and alcohol is advisable.





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Most powerful non-poisonous antiseptic—Think of what this means to you and all your family! In reassuring confidence, in safe, powerful antiseptic care.

When your child's throat is irritated or his hand cut—when you have to deal with any one of his countless little accidents and infections that may lead to serious sickness—then it is that you want to know you are giving him intelligent antiseptic care.

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You can and should keep Hexylresorcinol Solution S. T. 37 wherever a child can reach it. Never fear that a dreadful accident may occur.

Have your child use this powerful, protective antiseptic regularly as a mouth wash and gargle. Teach him to pour it instantly into open wounds. Laboratory tests show that Hexylresorcinol Solution S. T. 37 destroys harmful germs almost instantly on contact.

Safeguard your family's health by buying a bottle of Hexylresorcinol Solution S. T. 37 today. Made by one of the oldest pharmaceutical houses in America, of recognized high standing with the medical profession. At all druggists in the United States and Canada, 50¢ and $1.25.

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About Appendicitis

In the presence of unrelieved abdominal pain

1~Give no food, water or medicine
2~*Never give laxatives*
3~Call your Doctor

Recently a letter came to us from a mother who had lost a fine, strong boy of twelve from acute appendicitis. She wrote, "If I had run across just one article on appendicitis I feel sure we would not have had this sorrow. An advertisement of yours would save many, many lives. Please give this your earnest consideration."

Because her request voices a widespread desire to know what to do when appendicitis attacks swiftly, this announcement is published.

The deathrate from appendicitis in the United States has steadily increased during the past ten years. But it will be reduced and reduced rapidly when people learn what to do and particularly what not to do in case of an attack.

The symptoms of appendicitis vary. But almost always, continued pain and tenderness in the abdomen are the first indications of an acutely inflamed appendix.

There are two most important things to remember in event of an attack of acute appendicitis:

First:—Never use a laxative to relieve acute abdominal pain. If the pain means appendicitis, a laxative, instead of relieving the condition, is likely to spread the inflammation, to cause the appendix to burst or to induce peritonitis.

Second:—Send for your doctor immediately. In making his diagnosis he may decide that no harm will come from taking time to make a blood test to confirm his opinion. He may say that the attack can be relieved without operating. Or he may order an operation in the shortest possible time.

Performed without delay, by an expert, an operation for appendicitis is almost always successful. Be sure to consult an experienced and skilful surgeon because many needless operations have been occasioned by incorrect diagnosis.

METROPOLITAN LIFE INSURANCE COMPANY
FREDERICK H. ECKER, PRESIDENT ~ ONE MADISON AVENUE, NEW YORK, N.Y.

Jaundice in Infants

To the Editor:—What percentage of babies are born with yellow jaundice? How many have obstructive jaundice necessitating an operation? My baby is 6 weeks old and weighed 7 pounds 8 ounces at birth. He now weighs 8 pounds 2 ounces. One doctor has said he has obstructive jaundice and has advised an operation. The baby from birth has had a yellow color, which appeared in the whites of his eyes when he was several days old. Are there many casualties resulting from such an operation?

F. R., Colorado.

Answer.—Yellow jaundice appears in a large number of babies on the third and fourth days of life but disappears spontaneously in a few days or a week. The occurrence of the condition varies from 15 to 80 per cent according to different authorities. The number of cases of obstructive jaundice in the new-born is rare. The persistence of the jaundice in this case for six weeks indicates an abnormal condition of the liver or bile passages. If it is the latter, operation may relieve the condition. The disease itself is serious and since jaundiced patients are poor subjects for operation, the mortality is higher than in uncomplicated operations.

Painful Feet

To the Editor:—I have been suffering from painful feet and I can be on them only a short time. One doctor tells me to go barefoot; another says never to step out of bed without wearing shoes. They say the condition is due to weakness of the transverse arch. The little toe joints are enlarged and painful and a bunion is developing. I went to a "foot expert" who travels for a chain store. He recommended arch supports and manipulation, which he applies whenever he comes to town. When I was in nurses' training, arch supports were classed with patent medicines. This man's manipulations for putting the enlarged joints back in place are expensive and painful. What is the correct thing to do?

G. H., Oregon.

Answer.—The term "painful feet" is as indefinite as "stomach trouble" or "heart disease," but the inquirer has given a description of the complaint as it appears to her. It is impossible to say whether the treatment advised is appropriate without a proper diagnosis by an orthopedic surgeon. A layman or "foot doctor" is unlikely to be competent either in diagnosis or in treatment. Foot ills can be greatly ameliorated, if not permanently relieved, by an orthopedic surgeon.

Senile Dementia

To the Editor:—A woman of 60 has senile dementia. Her daughter has heard that senile dementia can be cured by infecting the patient with malaria and then curing the malaria. She is eager to do anything possible for her mother.

W. B. L., Massachusetts.

Answer.—Senile dementia, when the term is correctly used, is the name applied to an exaggeration of the decay of the tissues of the brain that occurs normally with old age. It is not capable of cure. Senility, or old age at 60, however, is distinctly rare; it is far more probable that the illness from which the patient is suffering is not of that nature, though it is not possible to decide definitely without information concerning the condition actually present.

Malaria is being used extensively, with striking success, in the treatment of disease of the brain resulting from syphilis. This had led naturally to much publicity and popular comment, and reports are often misinterpreted. Malaria is used to combat the syphilis. It is not a remedy for dementia, a word meaning only loss of mind, which may result from many different causes. Syphilis of the brain occurs mostly in persons about 40, though it is not unknown after 60. While malaria has been used experimentally in the treatment for some other nervous diseases, usually without striking benefit and certainly not without some danger, it has no place in dealing with senile dementia or other diseases of advanced years, in which its use would be highly dangerous.

The use of malaria as a remedy under proper conditions is no longer experimental; physicians specializing in nervous and mental diseases are competent to recognize the conditions in which it is indicated and to advise its use. Consultation with such a specialist is to be advised in the case described, particularly in view of the designation "senile." Many conditions that might be described as dementias occurring about the age of 60 are capable of recovery, though patience and perseverance in more homely and conservative types of treatment may be necessary.

Optimists look forward to the virtual extinction of disease, but it will only be after children are taught cleanly habits from the very first, brought up in clean houses, and sent to clean school houses through clean streets.

—Ellen H. Richards.

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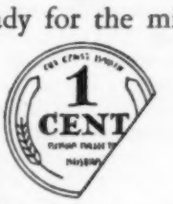
so 

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NO HUMAN policeman could stand the continuous strain of protecting your child 24 hours a day, month in and month out. But vitamins, those tireless guardians of bodily health and growth, are *always* on the alert, helping to ward off colds, to keep disease at a distance and to build bounding health and strength.

Perhaps your child is not growing as he should. Perhaps he is subject to frequent colds. Perhaps he is not getting enough of those precious vitamins. When a child's diet lacks the vitamins considered absolutely necessary, the result is susceptibility to colds, nervousness, retarded growth, poor teeth, or even one of the serious deficiency diseases.

Vitamins have definite duties. Vitamin A helps to prevent colds and other germ infections, promotes health and growth. Vitamin B (b1) improves appetite, prevents nervousness and aids in growth of babies. Vitamin G (b2) prevents certain skin eruptions and also tends to quiet the nerves. Vitamin C maintains a healthy condition of the blood and helps build up resistance against disease. Vitamin D aids in bone growth and prevents rickets, especially in children. It also is a great aid in preventing tooth decay.

Many of our every-day foods lack these vitamins. But there is one product available at every drug store which provides four vitamins in sufficient potency. It is Maltine With Cod Liver Oil. Seventy per cent is Maltine, a concentrated extract of the nourishing elements of malted barley, wheat and oats. The balance is pure, vitamin-tested cod liver oil. Maltine provides Vitamins B and G. The cod liver oil supplies Vitamins A and D. When taken with the morning glass of orange or tomato juice (rich sources of Vitamin C) all five vitamins are present in adequate amount.

Be sure that your child's health is not jeopardized by a vitamin deficiency. Help to fortify him against colds and disease by feeding Maltine With Cod Liver Oil.

To know more about vitamins, to know how to make your child healthy and strong, send for our booklet, "Those Strange Mysterious Elements in Our Food That Prevent Disease." Thousands of mothers have found it helpful. A copy will be mailed to you on request. Address The Maltine Company, 20 Vesey Street, New York, N. Y. (Est. 1875.)

On the RADIO—*The Maltine Story Hour every Tuesday afternoon at 5 o'clock (Eastern standard time) over* WJZ *and associated stations of the N. B. C.*

Maltine
WITH COD LIVER OIL

Accepted by the Council on Pharmacy and Chemistry of the American Medical Association

"Soft" Teeth

To the Editor:—What can you recommend for soft teeth? My dentist gave me cod liver oil concentrates although he would not say definitely whether it would do me any good, as he believes one should start when a child to build strong teeth.

H. M., Georgia.

Answer.—In the first place there is no assurance that the questioner has "soft" teeth. The assumption that teeth are soft just because they decay is erroneous. The significant factors in decay relate more to the environment in which the teeth are placed—that is, the conditions in the mouth—than to the quality of the tooth structure itself.

Teeth are built only in early childhood. The teeth of an adult cannot be materially changed by taking cod liver oil or by any diet. Any change in the diet of adults is reflected in the surrounding structures of the teeth, not in the teeth themselves. To effect a beneficial change in a given case with so intricate a subject as nutrition, it is better to consult the family doctor. Too much self medication is likely to be pernicious.

ANEMIA

(Continued from page 45)

and kidney, the former now being used in the treatment of pernicious anemia in place of or in conjunction with liver extract.

It is essential to emphasize that this new method of treatment cannot be regarded as a cure for pernicious anemia for, while patients can be brought back to normal and kept there by the continuous administration of a small maintenance dose, if the administration of liver or liver extract is stopped the disease reappears and pursues its course.

As far as can be told at present it appears that the progress of the disease can be completely arrested, perhaps indefinitely. In any event the patients with whom the treatment was begun about five years ago—who are still taking liver—are well and in apparently normal condition with normal blood findings.

One of the most intractable and ultimately fatal diseases known to medical science has, therefore, at last capitulated before the steady thrust of scientific investigation after having been a gruesome puzzle for at least two centuries. The studies made on experimental anemia in dogs were the direct means of saving countless human lives and may, perhaps, have been the first step toward the solution of one of the great problems of disease.

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Every day more and more women are adopting Old Dutch exclusively because it Cleans Quicker...Doesn't Scratch . . . Cleans more things, safely and thoroughly, than anything else . . . Protects Homes with Healthful Cleanliness . . . Goes further and costs less.

For details of Old Dutch Diamond Ring Contest Listen to the Old Dutch Girl Monday, Wednesday and Friday mornings over the Columbia Broadcasting System.

Old Dutch cleans more things than anything else . . . everything on which a cleanser can be used. In 60 days, 61,302 experienced homemakers have told us it's the only cleanser they need in their homes. Here are excerpts from a few of their letters:

"Cleans more things in less time, with less effort and less expense, than any other cleanser"—Mrs. J. W. Galloway, Winfield, Kansas.

"Cleans and polishes like a flash"—Mrs. W. F. Becker, Baltimore, Md.

"After 15 years, I'm complimented on the whiteness and lustre of my bathroom fixtures"—Mrs. Dell Moon, Lansing, Mich.

"Use it with extreme satisfaction on refrigerator"—Mrs. Spencer Sebrell, Limaville, Ohio.

Others express delight because Old Dutch is odorless and removes odors; because it's perfect for painted walls, woodwork, floors, linoleum and for the fireplace tile and brick; for kitchen pots, pans, cutlery and the finest silverware; for washing machines, tubs, boilers and the wringer rollers; for stone steps, stoves and false teeth . . . for an endless array of uses.

Put Old Dutch to work in your home. The tougher the job, the better Old Dutch will convince you. Get some today.

Old Dutch Holders, in Color

Mail 10c and windmill panel from an Old Dutch label for each holder

OLD DUTCH CLEANSER, Dept. 873, 111 West Monroe Street, Chicago, Illinois

Please find enclosed . . . . cents and . . . . labels for which send me . . . . Old Dutch Holders. Colors wanted: IVORY ☐ GREEN ☐ BLUE ☐

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The SLAVES, He Freed — HIMSELF, He Could Not!

With the stroke of a pen Lincoln emancipated millions of slaves. But to emancipate himself from the profound depression which so often attacked him, he found well nigh impossible. Time and time again great waves of melancholy rolled over him and threatened to destroy his political usefulness. Lincoln's overwhelming grief at the death of his beloved Ann Rutledge is well known. But it is not well known that during his ensuing period of mental depression he received his greatest help from a physician—a shrewd, common-sense, strong principled man. Nor has the story ever before been told of the influence of physician after physician that was woven throughout the pattern of Lincoln's life.

All of these medical contacts have been gathered into the new and engrossing narrative, "Lincoln and the Doctors," by Dr. Milton H. Shutes, beginning in the current issue of HYGEIA. The February installment will tell the story of Lincoln's love for Ann Rutledge, her untimely death, his affliction by malaria at the same time, his profound melancholy, and his recovery through the aid of Dr. John Allen.

Every contact of the Lincoln family with the medical profession is told in this absorbing narrative. Especially enlightening is Dr. Shutes' discussion of Lincoln as a psychoneurotic and the bearing of this phase on his life. You'll not want to miss any of this fascinating story which throws new light on the character and personality of Abraham Lincoln. Send in your subscription TODAY!

Also in the February HYGEIA

THE LIE DETECTOR

These are just two of the many scientific means of crime detection used by the Scientific Crime Detection Laboratory in affiliation with Northwestern University. Under the supervision of Col. Calvin Goddard, director of the Laboratory, a series of articles has been written by the heads of the various departments whose activities they describe. The first one appears in the next issue of HYGEIA. If you're interested in crime and mystery stories, you'll get a thrill out of these explanations of how science can help solve crime.

THE LOW-DOWN ON HIGH BLOOD PRESSURE

"Let the doctor worry over it; that is what he is paid for," says Dr. Wingate M. Johnson. But he also admits that while this advice is most often given it is least often taken. There is helpful information and advice in this article for those who have high blood pressure. If you've read Dr. Johnson's "Are Doctors Necessary?" in the current issue, you'll enjoy this article even though your blood pressure is normal!

THEN THERE are other articles with a wide health appeal: one on goiter, by Dr. John Rogers; another on children's posture, by Dr. Samuel A. Cohen; an extremely helpful article on breast feeding and weaning, by Dr. Joseph H. Marcus; and an enlightening one on oxygen, vitamins and food preservation, by E. F. Kohman.

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RECENT EDITORIAL FLAYS DECEPTIVE FOOD ADVERTISING

"The god of Advertisia is not accuracy but sales reaction. . . . The organs of the advertising and food industries must realize that foods today occupy an equal place with drugs, biologic products and surgery in the control of human ailments." These are among the more emphatic statements directed at advertisers of food in a recent editorial of *The Journal* of the American Medical Association.

Except for the package container or wrapper, advertising of food is not controlled. There is no way for the general public to be informed about valuable or harmful food. More recently the Committee on Foods of the American Medical Association has placed its stamp of approval on food that reaches the quality of its advertising. Many products have been accepted by this committee and the advertisers are justly using this recognition in their advertisements. Already a great deal of good has been accomplished. The editorial suggests three points of value:

1. The appearance on the label of any food product of a descriptive statement shows exactly what the product is. The food industry is flooded with the use of fanciful titles for products that do not indicate in any way their actual ingredients.

2. Since vitamins are of the greatest importance for the maintenance of health and for adequate growth, knowledge of vitamin content relative to the known content of substances rich in vitamins is important. When vitamin claims are made, advertising must state the vitamin content in relationship to these known substances. Since there are several processes for enhancing vitamin D potency in various food products, purchasers are entitled to know not only the process by which the vitamin content is enhanced but also the extent of this enrichment.

3. Even bread, the staff of life, has been subjected to such sophistication in various places as to make it necessary for the purchaser to know whether or not the bread he buys is what the producer asserts it to be in his advertising.

Whereas out of 500 products studied up to June, 1931, only 128 were accepted, by September, out of 541 products 165 were accepted. This progress is due to the willingness of the manufacturer to change labels and to correct advertising claims in order to make them acceptable.

43 PUBLICATIONS *for*

teachers, health-workers, and other community leaders

WITH *how many* ARE YOU FAMILIAR?

● The Cleanliness Institute list of "professional" publications has been *growing*... and is now 43 titles long. Though some of the books are little in size, all of them are big in purpose.

They are practical, every one of them—because prepared to meet the specific problems of teachers, physicians, health-workers, and other public leaders.

They cover a wide range of subject matter—from *Skin Troubles in Industry* to *Suggestions to Teachers* (based on teachers' classroom work). In fact, they cover almost every phase of cleanliness and cleanliness teaching.

In the past five years many teachers, physicians, health-officers and nurses have repeatedly called on Cleanliness Institute for assistance in their work.

Perhaps the Institute can also be of service to *you* in *your* work.

Whenever you are faced with a problem concerning cleanliness in your classroom or community, we suggest that you communicate with Cleanliness Institute. Or better yet, write *now* for our List of Publications. Please state your position or title when requesting free literature. Address all requests to Cleanliness Institute, Dept. 6M, 45 East 17th St., New York, N.Y.

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Established to promote public welfare by teaching the value of cleanliness

A MESSAGE TO MOTHERS AND DADS . . .

If your physician prescribes "warm, dry sunshine," more than likely he is thinking of Tucson in Southern Arizona —the *children's country*. Here youngsters play out of doors in sunshine *all* day—practically every day. There's no snow or sleet, little rain—just a continuous procession of warm, balmy days. Truly, children live in Tucson!

You will find splendid schools here, too, including the University of Arizona. To these advantages are added excellent housing accommodations and every metropolitan convenience.

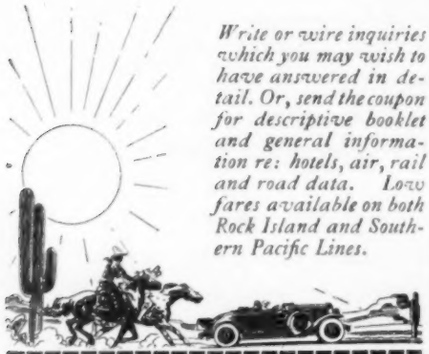
The Tucson Sunshine Climate Club, a non-profit civic organization composed of business and professional men, is always at the service of visitors. We will meet your train by appointment, make temporary reservations for you and assist you in getting satisfactorily located—without fee or obligation. We will also be glad to keep in touch with you during your stay in Tucson.

We will appreciate the opportunity to furnish you or your physician any specific information you want about sunny Tucson—the *children's haven*.

TUCSON SUNSHINE-CLIMATE CLUB

Max A. Pooler

President



Write or wire inquiries which you may wish to have answered in detail. Or, send the coupon for descriptive booklet and general information re: hotels, air, rail and road data. Low fares available on both Rock Island and Southern Pacific Lines.

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SCHOOLS, CHURCHES WILL OBSERVE CHILD LABOR DAY

Perhaps the greatest harm of child labor is the damage to health. Children can easily become fatigued by long hours of monotonous work. Furthermore many casualties and disabilities result from unguarded machinery that children must use. More than 2,000 minors under 18 years receive industrial injuries in New York alone each year, in Massachusetts another 2,000 and in Pennsylvania no less than 5,000.

Positive child labor legislation is difficult to obtain. Several attempts by the federal government to regulate child labor have been unsuccessful. It seems that it is not within the restriction of the national government. And in those states in which child labor is the biggest problem, poor politics clog the passage of such laws.

The National Child Labor Committee urges the observation of Child Labor Sunday for the twenty-fifth year. It will be observed January 23 in the synagogues, January 24 in Sunday schools and churches and January 27 in schools, clubs and other organizations. Its purpose is to initiate programs of public education culminating in legislative enactment for the protection of children.

THE DOCTOR'S LAMENT

Last night when others were at rest
I rode about and did my best
To save some patients, called by fate
From trav'ling through the Golden Gate,
This morning, when the news I spied,
I thought they might as well have died.

"Two Hundred Injured in a Wreck."
"Man Falls, Sustains a Broken Neck."
"Two Drown While Rocking a Canoe."
"Grade Crossing Murders Twenty-Two."
"Gas Blast Takes Lives of Twenty-Three."
"Two Die 'Neath Falling Apple Tree."

All night I toiled to save one life,
And millions die in useless strife;
What is the use to make one well,
While thousands harken to death's knell?
Where is my labor's recompense?
Why can't the world have common-sense?

—*The Journal* of the American Medical Association.

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GUARDING health in childhood, youth, and maturity stores up a precious investment. Those who do it collect big dividends. They feel well—enjoy themselves—are not irritated by petty annoyances. They see "good in everything."

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Your physician can keep you well. With his advanced knowledge and modern scientific aids, he can detect and forestall encroaching disorders, long before they become serious. Radiographs (x-ray pictures) aid him tremendously in making his diagnosis positive. They show conditions which other methods of examination cannot reveal.

Go to your physician annually for a complete health audit, which includes x-ray examination. Then follow his advice and he will keep you well.

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EASTMAN KODAK CO., *Medical Division*, Rochester, N.Y.

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is one of the reasons of its Health-Maintaining Properties.

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When your physician prescribes a medicated vapor, this DeVilbiss Electric Steam Vaporizer provides the easiest and most efficient means of making it. It replaces the crude "croup kettle" method which was so difficult, particularly with children. The patient may sleep safely with this Vaporizer operating in the bedroom, as it stops automatically when water evaporates. Economical in use of current. Ask your druggist, or write The DeVilbiss Company, Toledo, Ohio.

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Let a 2-watt Neon Glow Lamp guide you in the dark. Use one in the bedroom, bathroom, hallway, over the cellar stairs and wherever else a small amount of light is needed at night. Extremely economical. At your electrical dealer or write for literature. General Electric Vapor Lamp Co., 410 Eighth St., Hoboken, N.J.

ONCE *Each Week*

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Derbac HEALTH SHAMPOO

CEREAL SOAPS CO., Inc.
Dept. H-1
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NEW YORK

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FARMERS FEAR TESTING WITHOUT VALID REASON

The objections made by the Iowa farmers to the testing of their cattle for tuberculosis are unsustained and their excitement has been caused by a misunderstanding. A healthy cow will not receive any discomfort or harm whatsoever from the test. Little discomfort will be felt by the tuberculous cow. Government services have recently tried hard to impress the farmers of the Middle West with these facts.

The test merely is indicative of a healthy or sick cow. The sick cow will be killed in the interests of community health. But no farmer should object to this because both the state and the federal government have funds to reimburse the farmer for cattle that have to be slaughtered.

Tuberculin, the fluid that is injected in the skin on the under side of a cow's tail, is essentially the same as that used to test tuberculosis in human beings. It is a clear, sterilized fluid derived from broth cultures of the tuberculosis bacillus. It is entirely free of tubercle bacilli and of harmful bacteria of all kinds. In fact, tuberculin was originally made to be a cure of tuberculosis; in this it failed, but it is useful as a sensitive agent in diagnosis.

FRESH AND "FRESH" EGGS ARE DISTINGUISHED BY LAW

"When is an egg?" is the title of an article in the weekly bulletin of the California State Department of Public Health. But the housewife is more concerned with the statement, "When is an egg fresh?" The age of an egg is not always observable by the customer. In these days of keen competition, rapid transportation and cold storage facilities, how can the housewife know what values she is getting? There is only one way and that is by legislation.

In California a law has been passed grading the eggs under such headings as specials, extras, standards and trades. They are also classified by size. Only the farmer who sells direct to his customer is permitted to sell eggs without grading them. For those grades of eggs that meet the requirement of specials and extras, no stamp is necessary. Those eggs below that standard must be marked. Special restriction is made by law against the use of the word "fresh" when eggs are not specials.

It is of much value to housewives of California and of other states receiving California eggs to note this recent law.

CARBON MONOXIDE GAS, EXHAUST FROM CAR, IS POISONOUS

Judging from the number of lives lost through inhaling the deadly carbon monoxide gas in the fumes that pour forth from the exhaust pipe of every running automobile engine, too frequent warnings cannot be given. Year after year, health bulletins and magazines have emphasized the insidious nature of this gas.

The first precaution is always to open the garage doors and windows before starting the engine of the car. If the car needs repairing, do it if possible outdoors. If this is out of the question the safest method is to attach a pressure hose pipe tightly to the end of the exhaust pipe and run the hose in the open air through a suitable aperture.

It is not necessary for all windows and doors to be closed in order to have a fatality occur. Several cases have been reported in which doors or windows were open. The wind in one of these cases blew the exhaust back in the garage, it is believed.

Carbon monoxide acts quickly. Experiments have proved that only a few minutes of inhalation of this gas will produce drowsiness, and a few minutes more, unconsciousness.

PHYSICIANS INVESTIGATE HEALTH OF CHILDREN IN GERMANY

The pressure of economic strife as a result of the World War, the period of inflation and the present depression has had a severe effect on the children of Germany. At present doctors are entering the nurseries and municipal kindergartens of Germany to study the effects of disease on children whose health has been destroyed, *The Journal* of the American Medical Association reports in a recent issue. The children examined are mostly the offspring of the unemployed and of recipients of welfare benefits.

Living conditions are terrible. As many as ten children are living with their parents in two rooms. Even worse is the lack of proper nutrition. Growth and weight in many instances are far below normal, and obesity has resulted from undernourishment in other children. It is believed that the fat is due to hypothyroid conditions in the body.

It is easier to prevent tooth decay than to check it.—*American Dental Association.*

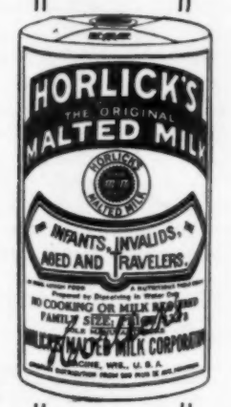
The child who will not eat—

NOT necessary for the tired mother to say so many times a day:

"Drink your milk, dear!"

On account of its delicious flavor, Horlick's makes milk drinking a pleasure, and it has the added advantage of combining the food value both of the milk and grains. For children tired of milk, it is a pleasant surprise.

Horlick's, made with water, has been found to actually stimulate the appetite. Made with milk, a heaping tablespoonful added to the glass of milk, doubles its nutritive value, offering an unusually nourishing digestible food drink for undernourished or nervous children.



For growing children Horlick's, used regularly, builds strength and resistance to disease. The results of the experiments conducted by the Department of Pediatrics, Marquette University Medical School (Am. Jrl. Dis. Chil. 40: 305) indicate that Horlick's Malted Milk, prepared simply with water, improves the appetite, and at the same time nourishes and strengthens.

Samples of Horlick's, natural and chocolate flavors, will be sent free upon request, if you will mention Hygeia, and a Speedy Mixer will be included upon receipt of 10c (stamps or coin).

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Send me a trial tube of Nivea Creme without charge.

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RURAL SCHOOL CHILDREN DELIGHT IN WARM LUNCHES

A letter to the *Illinois Teacher* illustrates one way in which efforts have been made to provide warm lunches to rural school children. It has become the work of the county teachers ever since the superintendent of schools made the suggestion. One teacher writes:

"The mothers in my district, my pupils and myself have worked out this plan quite successfully. We have a three-burner oil stove with an oven, a small cupboard containing dishes and silver for each child, also kettles and pans needed for preparing the lunches. . . . Our menus are planned to suit the mothers, pupils, teacher and with a thought as to the quality of food necessary for the good health of the children."

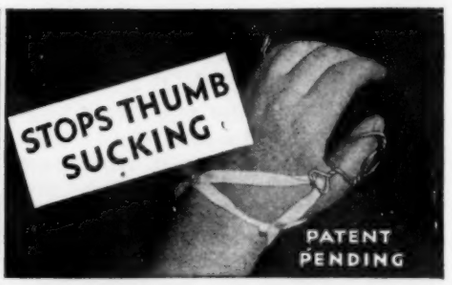
On one day, the children will bring potatoes; another day vegetable soup. Menus are planned a week in advance so the mother knows what to provide her child on each day. Vegetables come from the home ready for the kettle, so it really requires little time to do the whole job. The meals have become a real substitution for the cold sandwiches of former days.

HEALTH NEEDS DEFINITE AIMS AND PROCEDURE IN SCHOOLS

A health program suggested for teachers in the classroom by Dr. Charles H. Keene of the University of Buffalo divides the goal of the school hygiene program into seven components.

First he would provide for sanitation of the school plant; second, a physical education program broad enough in aim and content to provide the right kind of physical activity for every child every day, preferably outdoors. Third, he suggests adequate provision for the health of the teachers, and subsidiary to that, the training of teachers that will make them competent to undertake a portion of the physical education program.

He adds, fifth, a daily routine that will not break down children's bodies, but prepare them physically, mentally and spiritually. Hygiene teaching should be a part of the program to inculcate good hygienic habits, and last, regular health supervision by means of school physicians, school nurses, dentists and other specialists. To the last suggestion is added the necessity for special classes or schools for those physically handicapped in any way.



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After operations or in cases of intestinal inflammation, this belt will give your child a feeling of comfortable assurance which will greatly assist Nature in restoring normal conditions. In all sizes for children from infancy to adolescence—so adaptable that each becomes in fact an individual garment.

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CHEMISTS DISCOVER CAUSE OF ACIDITY OF WATER

Decayed algae, which are low forms of water plants, together with other decomposed organic matter are responsible for the increased amount of mineral manganese in drinking water of some vicinities. The American Chemical Society of Buffalo recently announced this disclosure. The report also showed that the dissolving of the manganese had produced the acidity of the water.

Edward S. Hopkins and George B. McCall, who made a careful study of the water supply of Baltimore, made the discovery. For the past few years it was known that the water supply of that city underwent an increase in manganese beginning in late October and continuing until January. Samples of water from the 23,000,000,000 gallon reservoir were taken weekly for about two years. The bottom of the water contained the manganese, and with the seasonal turnover was brought to the top to be used as a part of the city's supply. No satisfactory scientific explanation had been previously accepted.

ANTISCORBUTIC VITAMIN CONTENT HIGH IN TURNIP GREENS

Although it is generally accepted that fruits and vegetables are valuable sources of vitamin C, the antiscorbutic vitamin, there are differences in the efficacy of different plants. A recent discovery has proved that lemons are superior to lime juice in this respect.

Cabbage and spinach are effective in preventing and curing the disease. Kohman, Eddy and Gurin have recently shown that carrots, celery and head lettuce, which are commonly used raw in salads, are inferior to the commercially canned turnip greens, which approach spinach in antirachitic potency. Even in the varieties of apple, differences appear, an article in *The Journal* of the American Medical Association explains, whereas heat, cold, duration of time or degree of maturation of an apple does not seem to change the vitamin C potency.

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School children should use only

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For safety—use KLEENEX

Kleenex is the modern way to avoid the menace of germ-filled handkerchiefs. These soft, disposable tissues are so inexpensive they're used but once . . . then destroyed. Germs that live in handkerchiefs are destroyed, too. They're not permitted to self-infect or spread infection to others.

Made of rayon-cellulose, Kleenex is far softer than linen. It is actually 91% more absorbent, too. You'll find children prefer Kleenex to ordinary soiled handkerchiefs—once they try it.

And think of the economy . . . of the convenience to you! Kleenex costs less than handkerchief laundering. And there's no washing dirty handkerchiefs!

Try Kleenex for polishing spectacles, for manicuring, for applying medicine. And for removing cold cream, Kleenex has no equal. Its super-absorbency is needed to blot all dirt and make-up from the pores. Sold at all drug, dry goods and department stores.

KLEENEX *Disposable* **TISSUES**

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NO ONE is immune to perspiration and the discomforts and social implication that go with it, for perspiration often leaves in its wake an odor quite unpleasant.

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NONSPI
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checks the perspiration and prevents the odor, too. It needs to be applied only once or twice a week under the arms and to those parts of the body not exposed to adequate ventilation.

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PLAYGROUND FACILITIES ARE INCREASING

Playground and recreational projects have been extended by many cities during the past year as a means of providing work for the unemployed. The year book of the National Recreational Association shows an expenditure of $38,518,194 for recreation by 980 communities of the United States and Canada during 1930, which is the largest expenditure ever reported and a gain of five million dollars over the 1929 report.

About three and three quarters million people used the municipal playgrounds daily, it is estimated. Indoor recreational centers showed an attendance of 34,114,757. Nearly thirty-nine and a half million visits were made to the municipal bathing beaches in eighty-one cities, and 7,520,551 rounds of golf were played in 163 municipal courses. Ten organized league sports under city auspices enlisted 1,603,427 players. Playground baseball, soccer, tennis and bowling show the most marked growth in popularity.

Last year's popularity for miniature golf is shown by the fact that 184 courses were built by 97 cities, and a generous profit was reported for the courses.

Play leadership, which at first was considered women's work, shows a steady growth in the percentage of men leaders. For 1920, 4,149 men leaders and 6,069 women were reported employed. For 1930, 12,151 men and 12,798 women were employed. Of the 172 college graduates trained for recreation positions by the National Recreational School since its opening in 1926, 110 are men.

Among the 13,354 directed recreation areas reported by American cities, there are 7,677 outdoor playgrounds, 2,066 indoor centers, 4,322 baseball diamonds, 312 golf courses and 1,042 swimming pools. There are 1,806 ice skating areas, 59 ski jumps and 221 toboggan slides. More than 700 new play areas were opened in 1930 and there were 58 gifts of land in 52 cities.

HEALTH IS GIVEN JUST CONSIDERATION

Health is playing a more important part each year in educational requisites. It is of interest to health readers to note that good health has been listed first among the requirements for selection in a new type of teacher training institution at Columbia University to open in 1932.

Self-respect has more self-reliance than self-assertion.—Robertson.